



**KARNATAKA VETERINARY, ANIMAL AND FISHERIES SCIENCES UNIVERSITY,
BIDAR-585 401**

**ICAR-JRF
[Indian Council of Agricultural Research, New Delhi]
TUTORIAL QUESTION BANK**

FOR THE BENEFIT OF:

**FINAL YEAR B.V.Sc & A.H STUDENTS
VETERINARY COLLEGE, VINOBANAGAR
SHIMOGA-577204**



Tutorial Classes Conducted under SCP-

Government of Karnataka [FY: 2013-14]

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Organized by:

**VETERINARY COLLEGE, SHIMOGA
Karnataka Veterinary, Animal & Fisheries Sciences University
Vinobanagar, Shimoga-577204
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FORE WORD

The Indian Council of Council Agricultural Research [ICAR],New Delhi is the apex body for co-ordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country. With 99 ICAR institutes and 53 agricultural universities (including veterinary universities) spread across the country this is one of the largest national agricultural systems in the world.

Apart from above mandates of the Council, it is also encouraging student's to undertake quality higher education in veterinary, agriculture, horticulture, forestry and fishery sciences, in a way to produce quality scientists required for not only for its premier research institutes spread across the country, but also to scale up with human resource development. In this direction, ICAR, New Delhi is conducting Competitive Examinations annually, viz: Junior Research Fellowship, Senior Research fellowship, National eligibility Test [NET] in various disciplines of veterinary, agriculture and allied disciplines.

Of late, interest among graduate students [B.V.Sc&A.H] to peruse post- graduation [M.V.Sc] in a good institute is increasing and it is a good sign. In this context Veterinary College, Tioga is organizing tutorials for the interested B.V.Sc &A.H students during the period **10.2.2014 to 23.2.2014**. About twenty teachers served as resource scientists to coach the students appearing for ICAR-JRF Examination during the month of April 2014. On behalf of the University and Collage, I profusely thank the **Government of Karnataka** for funding this programme under the **SCP-TSP** grant. I thank Dr.Nagaraja.L Assistant Professor of Medicine who has served as Co- ordinator of SCP-TSP programme of the college for its effective utilization of grants released for the year 2013-14. I also take this opportunity to thank all the Resource Scientists who have involved in guiding the students to take up the competitive examination in right manner. I thank all the Members of the Question Bank Committee for their efforts which would help the students to prepare themselves in the best possible way to face the examination. Finally, my best wishes to all the students who are shortly apparearing for the ICAR- JRF Examination- 2014.

R.V.PRASAD
Dean(Vety.)

RESOURCE FACULTY

Sl. No.	NAME	DEPARTMENT
01	Dr.R.B.Dhabale Professor & Head	Department of Animal Reproduction, Gynecology & Obstetrics
02	Dr.Vijaykumar B. Shettar Assistant Professor (S.G) & Head	Department of Animal Genetics & Breeding
03	Dr.Rudresh. B.H Assistant Professor	Department of Animal Genetics & Breeding
04	Dr.V.Nagabhushana Professor & Head	Department of Animal Nutrition
05	Dr.K.C.Veeranna Professor & Head	Department of Animal Husbandry & Veterinary Education
06	Dr.C.B.Madhavaprasad Professor & Head	Department of Veterinary Public Health & Epidemiology
07	Dr.Prakash Nadoor Professor & Head	Department of Pharmacology & Toxicology
08	Dr.Lokesh L.V Assistant Professor	Department of Pharmacology & Toxicology
09	Dr.Chidanandiah Associate Professor & Head	Department of Livestock Products Technology
10	Dr.Nagaraja.L Assistant Professor	Department of Veterinary Medicine
11	Dr.T.N.Krishnamurthy Assistant Professor & Head	Department of Livestock production & Management
12	Dr.Ravi Rai Durg Assistant Professor & Head	Department of Surgery & Radiology
13.	Dr. K.J.Anand Assistant Professor & Head	Department of Veterinary Parasitology
14.	Dr. K.R Anjan Kumar Assistant Professor	Department of Veterinary Pathology
15.	Dr.Manjunath S.S Assistant Professor	Department of Veterinary Pathology
16.	Dr.Ganga Naik Assistant Professor & Head	Department of Veterinary Anatomy & Histology
17.	Dr.Vinuthan M.K Assistant Professor	Dept. of Veterinary Physiology & Biochemistry
18.	Dr. (Smt.) Sheela.P Assistant Professor	Department of Veterinary Microbiology
19	Dr. Sundhareshan Assistant Professor	Department of Veterinary Microbiology
20	Dr. Nagappa Banovalli Assistant Professor (OPG)	Department of Livestock production & Management

INDIAN COUNCIL OF AGRICULTURAL SCIENCES[ICAR]: MANDATE, ORGANISATIONAL SETUP AND THRUST AREA OF RESEARCH IN ANIMAL SCIENCE

The Indian Council of Agricultural Research (ICAR) is an autonomous organization under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture, Government of India. Formerly known as Imperial Council of Agricultural Research, it was established on 16 July 1929 as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture. The ICAR has its headquarters at New Delhi.

Historically in the year 1905, the Agricultural Research Institute was established at Pusa, Bihar by Lord Curzon. The land was donated by Mr. Phipps of USA after whom the place was named as PUSA. The Phipps laboratory in division of soil science and agricultural chemistry at Indian Agricultural Research Institute (IARI) was named after him. The Council is the apex body for co-ordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country. With 99 ICAR institutes and 53 agricultural universities (including veterinary universities) spread across the country this is one of the largest national agricultural systems in the world.

The ICAR has played a pioneering role in ushering Green Revolution and subsequent developments in agriculture in India through its research and technology development that has enabled the country to increase the production of food grains by 4 times, horticultural crops by 6 times, fish by 9 times (marine 5 times and inland 17 times), milk 6 times and eggs 27 times since 1950-51, thus making a visible impact on the national food and nutritional security. It has played a major role in promoting excellence in higher education in agriculture. It is engaged in cutting edge areas of science and technology development and its scientists are internationally acknowledged in their fields.

Mandate of ICAR

- To plan, undertake, aid, promote and co-ordinate education, research and its application in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences
- To act as a clearing house of research and general information relating to agriculture, animal husbandry, home science and allied sciences, and fisheries through its publications and information system; and instituting and promoting transfer of technology programmes
- To provide, undertake and promote consultancy services in the fields of education, research, training and dissemination of information in agriculture, agroforestry, animal husbandry, fisheries, home science and allied sciences
- To look into the problems relating to broader areas of rural development concerning agriculture, including postharvest technology by developing co-operative programmes with other organizations such as the Indian Council of Social Science Research, Council of Scientific and Industrial Research, Bhabha Atomic Research Centre and the universities

Some Milestones

- Initiation of the first All-India Co-ordinated Research Project on Maize in 1957

- Status of Deemed University accorded to IARI in 1958
- Establishment of the I State Agricultural University on land grant pattern at Pantnagar in 1960
- Placement of different agricultural research institutes under the purview of ICAR in 1966
- Creation of Department of Agricultural Research and Education (DARE) in the Ministry of Agriculture in 1973
- Opening of first Krishi Vigyan Kendra (KVK) at Puducherry (Pondicherry) in 1974
- Establishment of Agricultural Research Service and Agricultural Scientists' Recruitment Board in 1975
- Launching of Lab-to-Land Programme and the National Agricultural Research Project (NARP) in 1979
- Initiation of Institution-Village Linkage Programme (IVLP) in 1995
- Establishment of National Gene Bank at New Delhi in 1996
- The ICAR was bestowed with the King Baudouin Award in 1989 for its valuable contribution in ushering in the Green Revolution. Again awarded King Baudouin Award in 2004 for research and development efforts made under partnership in Rice Wheat Consortium.
- Launching of National Agricultural Technology Project (NATP) in 1998 and National Agricultural Innovation Project (NAIP) in 2005

Organizational setup for Research & Extension

In order to meet the various challenges with respect to research, extension and development policy decisions the Indian Council of Agricultural Science is supported following Institutions across the country.

- Deemed Universities: 4 deemed universities
- Research Institutions: 48
- National Research centers(NRCs):17 NRCs
- National Bureaux:6
- Directorate /Project Directorate: 24
- All-India Co-ordinated Research Projects(AICRPs): 40
- Krishi Vigynana Kendras (KVKs): 40
- Other projects (including International): 10

ICAR- Animal Science Division

Animal Science Division of ICAR coordinates and monitors research activities in its 18 Research Institutes and their Regional Centers. Deputy Director-General (Animal Sciences), Dr.K.M.L Pathak is the Head of the Division assisted by three Assistant Director Generals (ADGs), Dr SC Gupta, Dr Gaya Prasad and Dr. B.S Prakash in disciplines of Animal Production & Breeding, Animal Health and Animal Nutrition & Physiology respectively and supported by four Principal Scientists, Dr Rajan Gupta, Dr Vineet Bhasin, Dr (Mrs.) Neelam Gupta and Dr. (Mrs) Jyoti Misri. The Division has 2 National Research Institutes which are also Deemed Universities, 5 Central Research Institutes, 1 National Bureau, 4 Project Directorates and 6 National Research Centers. The Division coordinates 7 All India Coordinated Research Projects and 8 Network Research Programmes. In addition, 4 Outreach programmes and 3 mega seed projects (poultry, sheep and pig) are also being operated in different parts of the country at different ICAR institutes, State Agricultural / Veterinary Universities and Non-Governmental Organizations.

The Division also coordinates and monitors the Results Framework Document (RFD) Coordination Unit of DARE/ICAR. The Unit has one Principal Scientist, Dr. R.K. Tomar as the RFD Coordinator and one Scientist, Dr. VH Gupta. This Unit closely coordinates with the Subject Matter Divisions (Resource Centres) at ICAR headquarter and Resource Sub-centers (institutes) under each SMD for the preparation and timely submission of RFDs, Citizen's Charter for each financial year, Strategic Plans (2011-16), monthly, half yearly & yearly achievements etc.

Thrust Areas in Animal Science

- Molecular signatures for indigenous livestock resources
- Embryonic losses and improvement in reproductive efficiency
- Exploitation of genetic resistance through marker assisted selection for disease management
- Buffalo and goat genomics
- Stem cell research for animal health and production
- Improvement of utilization of low quality roughages through *in vivo* and *in vitro* manipulations
- Biochemical markers to assess the micronutrient status of animals
- Nutrigenomics, Nutraceuticals, Functional foods
- Probiotics/ prebiotics for enhancing nutrient utilization
- Manipulation of green house gases emission from livestock
- Adaptation strategies climate change through shelter management
- Development of diagnostics and immuno prophylactics for various diseases using biotech and nanotech tools
- Recombinant DNA vaccines
- Monitoring and surveillance for transborder diseases
- Zoonotic diseases
- Pharmacogenomics for design of new generation and indigenous drugs.
- Transgenic chicken and pigs for pharmaceutical / nutraceutical production
- Allele mining for abiotic stress and development of molecular markers
- Residual analysis of environmental and industrial pollutants; mycotoxin and drug residues
- Development and improvement of technologies for value addition, shelf life enhancement and quality assurance of livestock and poultry products.

[Source: ICAR Website]

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**ICAR-JRF Model Questions in the Subject of Veterinary
Pharmacology and Toxicology**

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I. Encircle the most appropriate answer for the following:

1. The signal transduction across neuro-effector tissue is relatively fastest *via*:
 - a. nuclear receptors
 - b. metabotropic receptors
 - c. ligand gated ionic channels
 - d. tyrosine kinase linked receptors

2. The hypothetical model used to derive potential toxic effect of a xenobiotic is called:
 - a. *in vitro* toxicology
 - b. molecular toxicology
 - c. predictive toxicology
 - d. regulatory toxicology

3. The time lag for the drug to fall one-half of the original concentration in plasma is measured to determine:
 - a. plasma half-life
 - b. clearance rate of drugs
 - c. volume of distribution
 - d. duration of action

4. 'gyr-A' gene induced mutation/ drug resistance is associated with:
 - a. beta-lactam antibiotics
 - b. sulphonamides
 - c. fluoroquinolones
 - d. tetracyclins

5. The hydro-alcoholic medicinal preparations are called:

- a. syrup
 - b. mixture
 - c. elixirs
 - d. liniment
6. The *Phase-II* drug metabolism otherwise referred as:
- a. oxidation reactions
 - b. pre-systemic metabolism
 - c. extra-hepatic metabolism
 - d. synthetic metabolism
7. The primary purpose of the metabolism of drugs is to render them:
- a. more polar
 - b. non-polar
 - c. lipid soluble
 - d. none of the above
8. Previously identified endothelium derived relaxing factor (EDRF) is currently known as:
- a. endothelin
 - b. platelet activating factor(PAF)
 - c. nitric oxide(NO)
 - d. relaxin
9. The biologically active principle present in *turmeric rhizome*:
- a. curcumin
 - b. cucurbitine
 - c. vitamin-C
 - d. piperine
10. The features of carrier mediated transport of drugs include all the following except
- a. selectivity
 - b. against the concentration gradient
 - c. energy (ATP) dependent
 - d. non-saturability
11. A sudden decrease in response to a drug after repeated exposure to a drug:
- a. anaphylaxis
 - b. tachyphylaxis
 - c. antagonist
 - d. idiosyncrasy
12. 'Senecosis' is a condition associated with:
- a. pyrrolizidine alkaloids
 - b. selenium toxicity
 - c. selenium deficiency
 - d. chronic arsenic toxicity

13. One of the following statements is not correct with respect to LD₅₀ studies:
- it varies with species
 - it measures sub-lethal toxicity
 - it varies with route & vehicle
 - can not measure idiosyncratic reactions
14. The drug of choice to treat peptic ulcer:
- ondansetron
 - losortan
 - omeprazole
 - cimetidine
15. The principal and ubiquitous inhibitory amino acid neurotransmitter in the CNS:
- L-glutamate
 - gamma-amino butyric acid(GABA)
 - dopamine
 - acetylcholine
16. One of the following is a *DNA polymerase* inhibitor:
- indianvir
 - zidovudine
 - amantadine
 - acyclovir
17. A non-sedative H₁ antihistamine:
- promethazine
 - chlorpheniramine
 - diphenhydramine
 - cetirizine
18. 'Ricin' is a:
- toxalbumin
 - trypsin inhibitor
 - neurotoxic alkaloid
 - cyanogenetic glycoside
19. DNA-dependent *RNA polymerase* in prokaryotic cells can be inhibited by:
- rifampicin
 - polymixin-B

- c. bacitracin
 - d. azithromycin
20. A second generation macrolide antibiotic:
- a. clarethromycin
 - b. netilmycin
 - c. sisomycin
 - d. tylosin
21. The preferred antidote for nitrate/nitrite toxicity in cattle is:
- a. methylene blue
 - b. sodium thiosulfate
 - c. disodium calcium EDTA
 - d. vitamin-B₁₂
22. The 'gun metal kidney' is observed in:
- a. copper toxicity
 - b. lead toxicity
 - c. oxalate toxicity
 - d. arsenic poisoning
23. 'Cerebral oedema' is associated with:
- a. phosphorous toxicity
 - b. copper toxicity
 - c. salt toxicity
 - d. urea toxicity
24. 'Arthropathy' is one of the major side effects of:
- a. fluoroquinolones
 - b. aminoglycosides
 - c. cephalosporins
 - d. benzimidazoles
25. Inhibition of cyclooxygenase (COX) by aspirin can be best described as:
- a. preferential COX₁ inhibitor
 - b. preferential COX₂ inhibitor
 - c. equipotent on both COX₁ and COX₂inhibitor
 - d. non-selective
26. The mechanism of action of cephalosporins involves inhibition of:

- a. DNA synthesis
 - b. cell wall synthesis
 - c. folic acid synthesis
 - d. protein synthesis
27. A competitive antagonist of benzodiazepine receptors
- a. 4-aminopyridine
 - b. nalorphine
 - c. yohimbine hcl
 - d. flumazenil
28. Minoxidil is a:
- a. $\text{Na}^+\text{-K}^+$ ATPase inhibitor
 - b. Ca^{+2} -channel blocker
 - c. Na^{+2} channel blocker
 - d. K^+ channel activator
29. The measure of how strongly a drug binds to its receptor is called:
- a. efficacy
 - b. affinity
 - c. potency
 - d. half-life
30. The maximum dose that do not induce any sign of adverse effect in most susceptible species and tested by using most sensitive indicator of toxicity:
- a. acceptable daily intake (ADI)
 - b. virtual safe dose (VSD)
 - c. not-observed adverse –effect level (NOAEL)
 - d. maximum permissible limit (MPL)
31. An extract of ‘*yew tree*’ having antineoplastic activity:
- a. lovastatin
 - b. taxol
 - c. artemisinin
 - d. quinine
32. A nephrotoxic mycotoxin considered twice as toxic as aflatoxin- B_1 in swine is:

- a. ochratoxin-A
 - b. rubratoxin
 - c. T₂-toxin
 - d. zeralenone (F₂ toxin)
33. A sedative- analgesic and muscle relaxant anaesthetic:
- a. ketamine hcl
 - b. chlorpromazine hcl
 - c. xylazine hcl
 - d. yohimbine hcl
34. One of the following is not a true aminoglycoside:
- a. streptomycin
 - b. neomycin
 - c. gentamicin
 - d. spectinomycin
35. The class of pesticide having large mammalian: insect toxicity ratio:
- a. organophosphate
 - b. organochlorins
 - c. carbamates
 - d. synthetic pyrethroids
36. 'Epinephrine reversal' phenomenon is associated with:
- a. tropane alkaloids
 - b. ergot alkaloids
 - c. methylxanthins
 - d. tricyclic antidepressants
37. The drugs which are used for rare disease:
- a. emergency drugs
 - b. rare drugs
 - c. orphan drugs
 - d. over the counter drugs

38. The branch of pharmacology dealing with study of variation in drug response on account of *cytochrome P₄₅₀ isoenzymes*:
- pharmacokinetics
 - pharmacovigilance
 - pharmacogenetics
 - pharmacotherapy
39. The drug which has been banned in India on account of eco-toxic effects:
- meloxicam
 - nimesulide
 - phenylbutazone
 - diclofenac
40. Ptaquiloside is a carcinogenic glycoside present in:
- Pteridium aquilinum* (bracken fern)
 - Dyopterous filix –mas* (male fern)
 - Equisetum arvense* (horse tail)
 - Eupatorium adeophorum* (crofton weed)
41. Evidence of blue-green ingesta and deep green colored faeces is indicative of:
- acute copper toxicity
 - lead poisoning
 - phosphorus toxicity
 - arsenic toxicity
42. Type of voltage gated calcium channel involved in cardiac pace maker and atria:
- T
 - L
 - N
 - PQ
43. One of the following events is not true when membrane is depolarized by -50mV:
- rapid increase in Na⁺ permeability
 - slow and steady increase in K⁺ permeability

- c. action potential is generated
 - d. rapid increase in Ca^+ permeability
44. In most nerve cells repolarization is associated with opening of:
- a. voltage dependent K^+ channel
 - b. voltage dependent Ca^+ channel
 - c. ligand linked Na^+ channel
 - d. None of the above
45. Which of the following drug characteristics will lead to favor low apparent V_d ?
- a. extensive plasma protein binding
 - b. large molecular weight
 - c. high water solubility
 - d. all of the above
46. A canine breed most susceptible for copper toxicity:
- a. Bellington terrior
 - b. Labrador
 - c. Collie
 - d. Pomarian
47. Interaction of prostaglandin- E_2 (PGE_2) with EP_3 exert:
- a. vasoconstriction
 - b. contraction of GI-tract
 - c. inhibit acid secretion
 - d. both 'b' and 'c'
48. A potassium channel activator:
- a. cromakalim
 - b. amlodipine
 - c. temolol
 - d. captopril
49. One among the following antifungal agent is a potent nephrotoxic agent:
- a. amphotericin-B
 - b. nystatin
 - c. griseofulvin

- d. itraconazole
50. An intestinal α -glycosidase (α -amylase) inhibitor indicated in type-II *diabetes mellitus*:
- metformin
 - acarbose
 - tolbutamide
 - glibenclamide
51. A chimeric monoclonal antibody (mAb) against the cytokine TNF_α used for rheumatoid arthritis and chrone's disease:
- infliximab
 - basiliximab
 - daclizumab
 - abciximab
52. Anticholesterol drug inhibiting HMG-CoA reductase:
- ciprofibrate
 - fenofibrate
 - gemfibrozil
 - atorvastatin
53. Isotope used in radiation therapy of metastatic thyroid tumor:
- ^{131}I
 - ^{125}I
 - ^{32}P
 - ^3H
54. A GABA analogue which do not act on GABA receptor but inhibit amino acid transporter system in the neuron:
- vigabatrin
 - topiramate
 - gabapentin
 - ivermectin
55. The action of β -bungarotoxin present in venom of cobra family is similar to:
- botulinum toxin
 - picrotoxin
 - physostigmine (eserine)
 - lidocaine
56. Haemorrhage is a characteristic toxic effect of which of the following?
- thallium
 - gasoline
 - carbon tetrachloride
 - warfarin
57. The 'time lag' for the drug to fall one-half of the original concentration in plasma is called:
- bioavailability (F)

- b. duration of action (T_d)
 - c. half-life ($t_{1/2\beta}$)
 - d. clearance (Cl_B)
58. The bactericidal action of cephalosporin group of antibiotics involves inhibition of:
- a. cell wall synthesis
 - b. DNA replication
 - c. ion transport
 - d. protein synthesis
59. The receptors for steroid hormones are located in:
- a. plasma membrane
 - b. cytoplasm
 - c. mitochondria
 - d. EPR
60. Acetylcholinesterase (AChE) enzyme is relatively rich in the venom of:
- a. Russell's viper
 - b. cobra
 - c. common krait
 - d. pit vipers
61. The toxalbumin present in castor bean is:
- a. mimosine
 - b. strychnine
 - c. ricin
 - d. hyoscine
62. A non-steroidal compound with anti-estrogenic effect is:
- a. finasteride
 - b. tamoxifen citrate
 - c. diethyl stilbioestrol
 - d. flutamide
63. A macrolide compound contraindicated in *Collie* and its cross bred dogs:
- a. praziquantel
 - b. levamisole
 - c. closantel
 - d. ivermectin

64. All but not one of the following is a chelating agent:
- british anti-Lewisite
 - desferroxamine
 - calcium di-sodium EDTA
 - 2-PAM
65. The bactericidal action of one of the following is described as 'time dependent':
- enrofloxacin
 - penicillin-G
 - streptomycin
 - metronidazole
66. The principal and ubiquitous excitatory amino acid neurotransmitter in the CNS is:
- L-glutamate
 - gama-amino butyric acid(GABA)
 - D-serine
 - glycine
67. The 'cherry red' colour of blood observed in cyanide poisoning is due to:
- haemolytic crisis
 - hyperoxygenation of blood
 - methaemoglobinemia
 - carboxyhaemoglobin
68. L -type calcium channel blocker used to prevent supraventricular tachycardia:
- quinidine
 - amlodipine
 - captopril
 - amrinone
69. Glucuronide formation, a mechanism of drug detoxification process is poor in:
- dogs
 - pigs
 - cats
 - cattle
70. An active principle present in *rhizomes* of turmeric plant:
- piperine
 - azadirachtin
 - curcumin

- d. quercetin
71. The mathematical description of changes in concentration of drugs or their metabolites in body is called:
- pharmacometrics
 - pharmacokinetics
 - chronopharmacology
 - pharmacodynamics
72. Carbon tetrachloride is primarily a:
- neurotoxicant
 - nephrotoxicant
 - haematotoxicant
 - hepatotoxicant
73. Which of the following is associated with milk sickness?
- cotton dust
 - parthenium pollen
 - snake root
 - fungi
74. A food preservative commonly employed in commercial pet foods:
- salicylic acid
 - boric acid
 - monosodium glutamate (MSG)
 - benzoic acid
75. A competitive antagonist of benzodiazepine receptor:
- 4-aminopyridine
 - gabapentin
 - yohimbine
 - flumazenil
76. One among the following selectively damage retinal cells:
- arsenic
 - warfarin
 - methyl alcohol
 - diulfiram
77. DNA-dependent *RNA polymerase* in prokaryotic cells can be inhibited by:
- isoniazid
 - tylosin
 - rifampicin
 - oseltamivir

78. More than fifty percent of drugs undergoes metabolism through:
- CYP 1A1
 - CYP 3A4
 - CYP2D6
 - CYP 2C9
79. Transfer of drug resistance genes between genetic elements within the bacterium is called:
- plasmid
 - transposons
 - transduction
 - conjugation
80. Most common mechanism of transfer of low molecular agents across the placenta:
- pinocytosis
 - active transport
 - simple diffusion
 - simple diffusion
81. Paralytic shell-fish poisoning caused by ingestion of seafood contaminated with:
- botulinum
 - methyl mercury
 - tetradotoxin
 - saxitoxin
82. The very purpose of metabolism of drugs in the body is to render them:
- functionally inactive
 - water soluble
 - lipid soluble
 - neutral compound
83. Improper usage of aminoglycoside antibiotic can cause all of the following except:
- ototoxicity
 - nephrotoxicity
 - bone marrow depression
 - neuromuscular blockade
84. Presence of heavy metals in biological samples can be qualitatively detected by :
- nessler's reagent
 - reinch's test
 - diphenylamine test
 - picric acid paper test
85. Salt toxicity is usually occurs in:

- a. sheep & goat
 - b. dog & cat
 - c. cattle & buffaloes
 - d. pig & poultry
86. Drugs having affinity for receptors does not exert intrinsic activity:
- a. orphan drug
 - b. agonist
 - c. antagonist
 - d. partial agonist
87. A term used to encompass the transport, mobility and disposition of chemicals in the environment is?
- a. toxicokinetics
 - b. bioaccumulation
 - c. chemodynamics
 - d. biomagnification
88. The post ganglionic sympathetic neurons are mainly nor-adrenergic, except in:
- a. sweat glands
 - b. spleen
 - c. liver
 - d. urinary bladder
89. Salbutamol is preferred over adrenaline in an asthmatic patient due to its selectivity for:
- a. α_1 receptors
 - b. β_2 receptors
 - c. β_1 receptors
 - d. M_2 receptors
90. Match the list- I with list- II by encircling the appropriate code given below:

List I

- A. ptaquiliside
- B. lantadene- A & B
- C. hypericin
- D. abrin

List II

- 1. Secondary photosensitization
- 2. Pteridium aquilinum
- 3. Phytoheamagglutinin
- 4. Primary photosensitization

Codes:

- a. A-2 B-3 C-1 D-4
 - b. A-3 B-4 C-1 D-2
 - c. A-2 B-1 C-4 D-3
 - d. A-3 B-1 C-4 D-2
91. Variation in the sensitivity of a population to increasing doses of a drug is determined by:
- a. efficacy
 - b. potency
 - c. graded dose- response curve
 - d. quantal dose- response curve
92. A drug with a half- life of 12 hr. is administered by continuous intravenous infusion. How long will it take for the drug to reach 90 % of its final steady state level?
- a. 24 hrs
 - b. 30 hrs
 - c. 40 hrs
 - d. 90 hrs

93. Which one of the following is the characteristic of parasympathetic stimulation:
- decreased GIT motility
 - inhibition of bronchial secretions
 - miosis
 - increase in heart rate
94. Compensatory increase in heart rate and rennin release that occurs in heart failure may be alleviated by:
- metoprolol
 - enalapril
 - digoxin
 - milrinone
95. The most potent anti- hyperlipimic drug used for raising plasma HDL:
- niacin
 - lovastatin
 - pravastatin
 - cholestyramine
96. One among the following inhibits $\beta(1,3)$ - D- glucon leading to lysis and fungal cell death:
- polyene antibiotics
 - echinocandins
 - griseofulvin
 - ketoconazole
97. The half- life of a drug with first order is elimination characteristics is:
- dependent upon dose
 - depend upon concentration
 - proportional to the dose
 - none of the above
98. If the half life of drug 'X' is 30 minutes how long it takes for the dog dosed with 5mg of drug to have less than 1mg:
- 90 min
 - 210 mins
 - 120 mins
 - 180 mins
99. Chemical pneumoitis is a common clinical result after ingestion of ?
- tetraethyl lead
 - kerosene
 - carbon tetrachloride
 - methanol
100. Echothiophate when applied to eye causes all of the following except:
- ciliary spasms
 - reversal of cycloplegia
 - reduction of IOP
 - mydriasis

Key:

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
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		r		r		r		r	
1.	c	21	a	41	a	61	c	81	d
2.	c	22	a	42	a	62	b	82	b
3.	a	23	c	43	a	63	d	83	c
4.	c	24	a	44	a	64	d	84	b
5.	c	25	a	45	d	65	b	85	d
6.	d	26	b	46	a	66	a	86	c
7.	a	27	d	47	d	67	b	87	c
8.	c	28	d	48	b	68	b	88	a
9.	c	29	b	49	a	69	c	89	b
10	d	30	c	50	b	70	c	90	c
11	b	31	b	51	a	71	b	91	d
12	a	32	a	52	d	72	d	92	c
13	c	33	c	53	b	73	c	93	c
14	c	34	d	54	c	74	d	94	a
15	b	35	d	55	a	75	d	95	a
16	d	36	b	56	d	76	c	96	b
17	d	37	c	57	c	77	c	97	c
18	a	38	c	58	a	78	b	98	a
19	a	39	d	59	b	79	b	99	b
20	a	40	a	60	b	80	c	100	d

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**ICAR-JRF Model Questions in the Subject of Veterinary
Pharmacology and Toxicology**

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1. Smaller dose of adrenaline given slowly (i.v) shows 'biphasic response', because sensitivity of :
 - a. 'α'-receptors > β₂- receptors
 - b. β₂- receptors < 'α' receptors
 - c. β₂ receptors > 'α' receptors
 - d. β₁- receptors > 'α₂' receptors

2. One of the following is a 5HT₃ blocker used to control anti-cancer or radiotherapy induced nausea and vomiting:
 - a. cyproheptadine
 - b. ketanserin
 - c. ondansetron
 - d. methylsergide

3. Class of diuretic which aggravate pre-existing *Diabetes mellitus*:
 - a. xanthine alkaloids
 - b. benzothiadiazides
 - c. potassium sparing
 - d. carbonic anhydrase inhibitors

4. Canrenone is an:
 - a. aldosterone antagonist
 - b. 5-HT antagonist
 - c. osmotic diuretic
 - d. dopamine antagonist

5. One of the following can be used as a bulk purgative:

- a. Aloes
 - b. Senna
 - c. Rhubarb
 - d. Agar-agar
6. A fat soluble vitamin having anti-oxidant property:
- a. vitamin-D
 - b. vitamin-E
 - c. vitamin-A
 - d. vitamin-K
7. In obstetrics ergometrine is employed for its:
- a. cardiotonic property
 - b. cardiac stimulant property
 - c. vasoconstrictor property
 - d. vasodilator property
8. An H_1 -receptor antagonist:
- a. nizatidine
 - b. ranitidine
 - c. terfenadine
 - d. famotidine
9. All of the following are naturally occurring cholinergic alkaloids except:
- a. muscarine
 - b. pilocarpine
 - c. reserpine
 - d. arecholine
10. A 'luteolytic' prostaglandin:
- a. PGE_1
 - b. PGI_2
 - c. PGE_2
 - d. $PGF_{2\alpha}$
11. About 90 per cent of 5-hydroxytryptamine (5-HT) is present in
- a. brain
 - b. platelets
 - c. enterochromaffin cells
 - d. mast cells
12. Proton pump blockers act by inhibiting:
- a. $H^+K^+ - ATPase$
 - b. $H^+Na^+ - K^+ - ATPase$
 - c. $H^+Ca^{++} - K^+ - ATPase$
 - d. $K^+ - ATPase$
13. A pair of drugs which are safe in Collie or its crossbred:

- a. Abamectin, ivermectin
 - b. Selamectin, milbemycin oxime
 - c. Selamectin, moxidectin
 - d. Ivermectin, doramectin
14. Mechanism of action of cephalosporins:
- a. Inhibit folic acid synthesis
 - b. Inhibit 30 S'-protein synthesis
 - c. Inhibit 50 S'-protein synthesis
 - d. Inhibit cell wall synthesis
15. A non-competitive inhibitor of Cl⁻ gated glutamate or GABAergic neurons:
- a. Fipronil
 - b. Imidacloprid
 - c. Amitraz
 - d. Piperonyl butoxide
16. An antimicrobial agent capable of stimulating 'motilin' receptors:
- a. Spectinomycin
 - b. Amikacin
 - c. Zn Bacitracin
 - d. Erythromycin
17. Meat and milk withdrawal period is zero:
- a. Doramectin & Ivermectin
 - b. Abmectin & Doramectin
 - c. Eprinomectin & Moxidectin
 - d. Ivermectin & Sulamectin
18. All the following are ionophoric polyether class of antibiotics EXCEPT:
- a. Maduramicin
 - b. Lasalocid
 - c. Tiamulin
 - d. Salinomycin
19. Inhibition of fungal ergosterol synthesis:
- a. Ketolides
 - b. Macrolides
 - c. Azoles
 - d. Azalides
20. Which one of the following is the correct sequence in descending order of susceptibility to snake venom?
- a. Horse-Cat-Dog-Cattle- Sheep -Goat- Pig
 - b. Cattle- Horse- Sheep-Goat- Dog-Pig-Cat
 - c. Horse- Sheep- Cattle-Goat- Dog-Pig-Cat
 - d. Horse- Sheep- Cattle-Goat- Dog-Cat-Pig
21. Which one of the following combinations used for the treatment of cyanide poisoning?

- a. Sodium nitrite and sodium thiosulphate
- b. Sodium nitrite and sodium chloride
- c. Sodium thiosulphate and sodium chloride
- d. Sodium chloride and sodium bicarbonate

22. Match *List-I* (toxic factor) with *List-II* (source) and select the correct answer using the codes given below the lists:

List-I (Toxic factor)	List-II (Source)
A.HCN	1. Paddy straw
B.Gossypol	2. <i>Pteridium aquilinum</i>
C.Oxalate	3. Cotton seed
D.Thiaminsae	4. <i>Acacia.leucopholea</i>

Codes:

- a. A-2 B-3 C-1 D-4
- b. A-4 B-3 C-1 D-2
- c. A-2 B-1 C-3 D-4
- d. A-4 B-1 C-3 D-2

23. Which one of the following pairs of poisons and antidotes is **not correctly** matched?

- a. Sweet clover : Phytomenadione
- b. Carbaryl : Atropine sulphate
- c. Nitrite : Prussian blue
- d. Belladonna alkaloid : Physostigmine

24. A food born exotoxin causing neurotoxicity:

- a. F₂ toxin
- b. T₂ toxin
- c. Botulinum
- d. Tetanolysin

25. The toxalbumin present in castor bean is:

- a. Mimosine
- b. Strychnine
- c. Ricin
- d. Hyoscine

26. Which one of the following pairs of poison and site of action is **correctly** matched?

- a. OP-compounds : Cholineacetyl transferase
- b. Cyanide : Monoamino oxidase
- c. Lead : Acetylcholineesterase
- d. Warfarin : Vitamin-K epoxide reductase

27. Consider the following substances:

- 1. Dimercaprol
- 2. Glucomannan
- 3. Ca-disodium EDTA
- 4. Bentonite

Which of the above used as toxin binders?

- a. 1 and 2
- b. 3 and 4
- c. 1 and 3
- d. 2 and 4

28. The dose response relationship used to estimate/ determine the LD50

- a. graded dose response
- b. quantal dose response
- c. all of the above
- d. none of the above

29. Consider the following:

- 1. Chronic lead toxicity 2. Chronic nitrite toxicity
- 3. Chronic arsenic toxicity 4. Secondary hypocuprosis

Symptoms like wasting, poor condition of animal, brick-red discoloration of visible mucus membrane, thin (paper like) and cracked skin resulting in bleeding and prone for infection occurs in:

- a. 1 and 3 only
- b. 2 and 4 only
- c. 3 only
- d. 4 only

30. Phytomnadione (vitamin-K₁) is a specific antidote for which of the following poisoning?

- a. ANTU
- b. Warfarin
- c. Zinc phosphide
- d. Bracken fern

31. Consider the following clinical symptoms:

- 1. Nearly continuous tetanic convulsions (tonic seizures)
- 2. Hyperexcitability to touch –noise-light and induce reflexive spasms
- 3. Hypothermia and discharge of blood from body orifices
- 4. Miosis and extensive rigidity of flexor muscles

Which of these symptoms are observed in strychnine toxicity?

- a. 2 and 3
- b. 1 and 2
- c. 2 and 4
- d. 3 and 4

32. One among the following is used as feed additives to adsorb aflatoxins in the gut:

- a. Calcium hydroxide
- b. Hydrated sodium calcium aluminosilicate
- c. Aluminum hydroxide
- d. Sodium hydroxide

33. Bluish black kidneys are characteristically observed in:

- a. Cyanide poisoning
- b. Lead poisoning
- c. Molybdenum toxicity
- d. Copper toxicity

34. One among these mycotoxins has greater affinity towards estrogen receptors:
- F₂-toxin
 - T₂-toxin
 - DON
 - Citrinin
35. A specific iron chelating agent useful in acute and sub-acute toxicosis:
- Dimercaprol
 - D-penicillamine
 - Ammonium tetrathiomolybdate
 - Desferroxamine
36. The 'time lag' for the drug to fall one-half of the original concentration in plasma is called:
- bioavailability (f)
 - duration of action (t_d)
 - half-life (T_{1/2β})
 - clearance (cl_b)
37. Which of the following sulfonamide is used as topical agent
- Sulfacetamide
 - sulphaguanadine
 - sulfaquinoxaline
 - sulfasalazin
38. Which of the following is an anti fungal drug
- flucanazole
 - metronidazole
 - vincristine
 - bacitracin
39. Griseofulvin isolated from
- Streptomyces fradiae*
 - Penicillium notatum*
 - Streptomyces venezuelae*
 - Penicillium griseofulvum*
40. The drug buparvaquone is a choice of drug for the treatment of
- theileriosis
 - babesiosis
 - anaplasmosis
 - all of the above
41. Grey hounds shown to have low activity of
- cyp 2B11
 - CYP2D15
 - CYP1A2
 - CYP2D6
42. The anthelmintic compound that immunomodulatory effect at dose levels lower than that of therapeutic dose
- niclosamide
 - piperazine
 - levamisole
 - all of the above

43. Azithromycin is a
 a. azolid
 b. ketolid
 c. aminocyclitol
 d. polymyxin
44. The drug of choice for the treatment of babesiosis
 a. buparvaquone
 b. diaminazine aceturate
 c. amprolium
 d. all of the above
45. Safe concentration($\mu\text{g}\cdot\text{g}^{-1}$) of a residue which can be consumed in any tissue each day can be derived from:
 a. NOEL/ Safety factor
 b. ADI x 60kg/ Food(gm) consumed per day
 c. NOEL x safety factor
 d. NOEL x 100 kg/ Food(gm) consumed per day
46. Fipronil is a non competitive blocker of :
 a. GABA- gated Cl^- channels
 b. Glycine-gated Cl^- channels
 c. Glutamate- gated Cl^- channels
 d. Both a and c
47. A chitin synthesis inhibitor preventing formation of insect exoskeleton
 a. methaprime
 b. diflubenzarone
 c. cyromazine
 d. all of the above
48. Centrally acting anti hypertensive drug:
 a. clonidine
 b. captopril
 c. ambloodipine
 d. Verapamil
49. An example of xenobiotics is:
 a. acetylcholine
 b. apomorphine
 c. adrenaline
 d. dopamine
50. Pin point pupil is caused by :
 a. morphine
 b. ephinephrine
 c. atropine sulphate
 d. physostigmine
51. Bioaccumulation occurs in which poisoning
 a. D.D.T
 b. pyrethroid

- c. serin
 - d. all of the above
52. Which enzyme involved in protection against oxidative damage:
- a. cytochrome oxidase
 - b. superoxide dismutase
 - c. glutathione peroxidase
 - d. both b and c
53. acidic drugs rapidly absorbed from:
- a. stomach
 - b. mouth
 - c. intestine
 - d. all of the above
54. An active drug converted into an active metabolite:
- a. lethal synthesis
 - b. activation
 - c. inactivation
 - d. modification
55. Passage of drug across biological membrane is influenced by:
- a. Molecular weight
 - b. degree of ionization
 - c. lipid solubility
 - d. all of the above
56. Enterochromaffin cells rich in:
- a. Kinins
 - b. angiotensins
 - c. serotonin
 - d. histamine
57. Gastrokinetic drugs are following except:
- a. metronidazole
 - b. cisapride
 - c. metoclopramide
 - d. domperidone
58. The drug produces mydriasis without cycloplegia:
- a. atropine
 - b. muscarine
 - c. Homatropine
 - d. tropicamide
59. An alpha 2- adrenergic agonist used for preanaesthetic medication:
- a. atropine
 - b. clonidine
 - c. prozosine
 - d. Xylazine

60. The topically used antibiotic that on systemic administration has the potential to cause nephrotoxicity:
- neomycin
 - bacitracin
 - poymyxins
 - none of the above
61. Enrofloxacin is partly metabolized in the body to
- norlfoxacin
 - ciprofloxacin
 - pefloxaci
 - lomefloxacin
62. The most important factor in producing toxicity is :
- specis
 - LD50
 - dose
 - health of the animal
63. The enzyme inhibited by OP compounds:
- corboxy esterases
 - pseudo cholineesterase
 - dopamine hydroxylase
 - acetylcholine esterase
64. The major Phase I reaction of metabolism:
- oxidation
 - hydrolysis
 - reduction
 - conjugation
65. Enterohepatic circulation has the following effect on the half life of a drug:
- increases
 - decreases
 - constant
 - no effect
66. A monoamine receptor believed to serve as a ligand- operated ion channel:
- 5HT₄ receptors
 - 5HT₃ receptors
 - H₂ receptors
 - 5HT₁ receptors
67. A 'class- IA' anti-arrhythmic drugs acting as membrane stabilizers:
- lodocaine
 - tocainide
 - disopyramide
 - phenytoin
68. Anticoagulant effect of heparin is attributed to:
- Ca⁺⁺ chelation
 - Reversible binding to AT III

- c. inhibition of clotting factor VII
 - d. inhibition of clotting factor II,IX,X& VII
69. One of the following is not a property of Diltiazem:
- a. Vasodilataion
 - b. +ve inotropic &+ve chronotropic effect
 - c. decreased AV conduction
 - d. decreased SA node activity
70. One of the following induces hyperkalemia:
- a. acetazolamide
 - b. spiranolactone
 - c. Ethacrynic acid
 - d. chlorothiazide
71. Frequent administration of one of the following may inhibit ACTH & glands of adrenal cortex
- a. estrodiol
 - b. boldinone
 - c. mefistrol
 - d. stanzolol
72. A cell cycle phase specific anti-neoplastic drug:
- a. vincristine
 - b. lemustine
 - c. chlorambucil
 - d. cisplastin
73. A streptogramin class of antibiotic:
- a. virginamycin
 - b. tiamulin
 - c. salinomycin
 - d. novobiocin
74. Activation of which of the following protein coupled receptors will augment Ca^{++} release from EPR:
- a. Gs
 - b. Gq
 - c. Gi
 - d. Go
75. Which of the following colloid solution has the shortest duration of action:
- a. 10% dextran-40
 - b. 6% dextran-70
 - c. 6% heta starch
 - d. 5% oxy polygelatin
76. One among the following is not effective in killing the ticks:
- a. fipronil
 - b. amitraz
 - c. permethrin

- d. imidacloprid
77. Which of the following is the most likely etiologic agent for milk sickness:
- cotton dust
 - fungi
 - sugar cane
 - snake root
78. which of the following is an example of reverse mutation test:
- sister chromatid exchange
 - 'AMES' test
 - dominant lethal assay
 - micronucleus test
79. The acute inflammatory response will occur in the following sequence:
- vasoconstriction- vasodilatation- fluid exudation- cellular exudation
 - vasodilatation - vasoconstriction - fluid exudation- cellular exudation
 - vasoconstriction- vasodilatation- cellular exudation -fluid exudation
 - vasoconstriction- fluid exudation- vasodilatation- cellular exudation
80. One of the following pair is incorrect:
- Aflatoxin – liver cancer
 - botulinum – food poisoning
 - tetradotoxin- block Na^+ transport
 - microtoxins – CNS stimulant
81. Which of the following forms of the phosphorus has lowest LD50 value:
- white or yellow phosphorus
 - red phosphorus
 - black phosphorus
 - violet phosphorus
82. One of the following glycerol is used in pharmaceuticals because of its lowest oral toxicity:
- ethylene glycol
 - propylene glycol
 - tri methylene glycol
 - di-ethylene glycol
83. Constipation is caused by the following antacid salt:
- magnesium
 - sodium
 - calcium
 - aluminium
84. Cholinergic receptors in the heart:
- M1
 - M2
 - M4
 - M5
85. One of the following does not constitute 'SRS-A'
- LTC4

- b. LTD4
 - c. LTE4
 - d. LTF4
86. β_3 receptors present in the following tissues:
- a. cardiac tissue
 - b. skin
 - c. adipose tissue
 - d. liver
87. One I.U. of pencillin-G is equal to
- a. 1.0 μ g
 - b. 1.6 μ g
 - c. 0.06 μ g
 - d. 0.6 μ g
88. The *Minimata* disease is caused by
- a. organo-mercurial compounds
 - b. OPC
 - c. organo-chlorine compounds
 - d. arsenical compounds
89. The branch of pharmacology deals with measuring of intensity of effect of drug is:
- a. Pharmacotherapeutics
 - b. Pharmacovigilance
 - c. pharmacodynamics
 - d. Pharmacogenetics
90. Eicosanoids stored in
- a. in vesicles
 - b. prostate glands
 - c. basophills
 - d. no where
91. Narcotic antitussive suitable for use in non-productive cough:
- a. morphine
 - b. codeine
 - c. dextromethorphan
 - d. noscapine
92. Major use of antacids in small animals is to treat:
- a. peptic ulcers
 - b. abomasal ulcers
 - c. gastrointestinal acidosis
 - d. all of the above
93. Piperazines causes hyper polarization of cell due to following ion:
- a. chloride
 - b. magnesium
 - c. sodium
 - d. calcium

94. True morphine antagonist:
- naloxone
 - nalorphine
 - both a & b
 - none of the above
95. Choline esters except:
- edrophonium
 - carbachol
 - methacholine
 - acetylcholine
96. Oral hypoglycemic drug belongs to biguanides:
- tolbutamide
 - metformin
 - glipizide
 - sulphonylureas
97. Depolarising/ non competitive NM blocking agent is:
- α -bungarotoxin
 - quinoxiline
 - suxamethonium
 - diclofenac
98. Crystallization more likely to occur in:
- acidic P^H of urine
 - P^H above 8
 - basic P^H of urine
 - acidic P^H below 3
99. An anti estrogenic compound used in mammary gland carcinoma in bitch:
- finasteride
 - tamoxifen citrate
 - mifepristone
 - diethyl stilbestrol
100. A long acting glucocorticoid:
- prednisolone
 - dexamethasone
 - hydrocortisone
 - triamcilon acetone

Key:

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1.	a	21	a	41	a	61	b	81	a
2.	c	22	a	42	c	62	c	82	b
3.	b	23	c	43	b	63	d	83	d
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5.	d	25	c	45	b	65	a	85	d
6.	b	26	d	46	d	66	b	86	c
7.	c	27	d	47	a	67	c	87	d
8.	c	28	b	48	a	68	b	88	a
9.	c	29	c	49	b	69	b	89	a
10	d	30	b	50	a	70	b	90	d
11	c	31	b	51	a	71	c	91	b
12	a	32	b	52	d	72	a	92	c
13	b	33	d	53	a	73	a	93	a
14	d	34	a	54	b	74	b	94	d
15	a	35	d	55	d	75	a	95	a
16	d	36	c	56	c	76	c	96	b
17	c	37	a	57	a	77	d	97	c
18	c	38	a	58	d	78	b	98	a

19	c	39	d	59	d	79	a	99	b
20	a	40	a	60	a	80	c	100	b

**ICAR-JRF Model Questions in the Subject of Veterinary
Anatomy and Histology**

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1. The duodenum is lined by
 - a) Simple cuboidal epithelium
 - b) Stratified columnar epithelium.
 - c) Simple columnar epithelium
 - d) Simple squamous epithelium.

2. Accepted model of the plasma membrane is
 - a) Trilaminar membrane
 - b) Unit membrane
 - c) Fluid mosaic model
 - d) None of the above

3. Cartwheel appearance of the nucleus is characteristic of
 - a) Macrophage
 - b) Mast cell
 - c) Neutrophil
 - d) Plasma cell

4. Specific stain for Collagen fiber is
 - a) Haematoxylin and eosin
 - b) Van Geison
 - c) PTAH
 - d) Ver hoefffer

5. Mode of secretion of sebaceous gland is
 - a) Merocrine
 - b) Holocrine
 - c) Apocrine

- d) None of the above
- 6. Cartilage cells are called
 - a) Chondroblasts
 - b) Ameloblasts
 - c) Odontoblasts
 - d) Osteoblasts
- 7. Mesangial cells are present in
 - a) Proximal Convoluted tubule
 - b) Distal Convoluted tubule
 - c) Renal corpuscle
 - d) Collecting duct
- 8. The Osteon has
 - a) Haversian canal
 - b) chondrocytes
 - c) astrocytes
 - d) Schwann cells
- 9. The urinary bladder is lined by
 - a) Simple columnar epithelium
 - b) Transitional epithelium
 - c) Simple cuboidal epithelium
 - d) Stratified squamous epithelium
- 10. Fertilization occurs in
 - a) Body of Uterus
 - b) Fallopian tube
 - c) Horns of uterus
 - d) Cervix of uterus
- 11. The taste buds are absent in this papillae of the tongue
 - a) Foliate papillae
 - b) Fungiform papillae
 - c) Vallate papillae
 - d) Filiform papillae
- 12. In domestic animals implantation occurs in
 - a) Body of uterus
 - b) Fallopian tube
 - c) Horns of uterus
 - d) Cervix of uterus
- 13. The first site of haematopoiesis in embryo
 - a) Hind gut region
 - b) Mid gut region
 - c) Yolk sac region
 - d) Fore gut region
- 14. Histological classification of placenta in pig

- a) Haemochorial
 - b) Syndesmochorial
 - c) Haemoendothelial
 - d) Epitheliochorial
15. Genital ducts are derived from
- a) Intermediate mesoderm
 - b) Lateral mesoderm
 - c) Somatic mesoderm
 - d) Splanchnic mesoderm
16. Foramen ovale in the foetus lies between
- a) Right atrium and right ventricle
 - b) Right atrium and left ventricle
 - c) Right atrium and left atrium
 - d) Right ventricle and left ventricle
17. Parathyroid gland arises from
- a) I and II pharyngeal pouch
 - b) II and III Pharyngeal pouch
 - c) III and IV pharyngeal pouch
 - d) IV and V pharyngeal pouch
18. Adenohypophysis is derived from
- a) Rathke's pouch
 - b) Diencephalon
 - c) Mesencephalon
 - d) Tuberculum impar
19. Tendon and ligaments consists of
- a) Adipose tissue
 - b) Dense regular connectivetissue
 - c) Dense irregular connective tissue
 - d) Loose connective tissue
20. Payer's patches are found in the submucosa of
- a) Ileum
 - b) colon
 - c) Jejenum
 - d) Duodenum
21. The trachea is lined by
- a) Simple squamous epithelium
 - b) Stratified columnar epithelium
 - c) Simple columnar epithelium
 - d) Pseudostratified ciliated columnar epi
22. Transmembrane proteins are associated with
- a) Nuclear membrane
 - b) Plasma membrane
 - c) Rough endoplasmic reticulum

- d) Smooth endoplasmic reticulum
23. The condensed form of chromatin tightly coiled and occurs in inactive cells
- a) Euchromatin
 - d) None of the a
 - b) Heterochromatin
 - c) Both a and b
24. Articular cartilage of joints is
- a) Elastic
 - b) Fibrocartilage
 - c) Hyaline
 - d) None of the above
25. Mode of secretion involving entire cell in the secretory process is
- a) Merocrine
 - b) Holocrine
 - c) Apocrine
 - d) Cytocrine
26. Phagocytic cells in the CNS refers to
- a) Kupffer cells
 - b) Histiocytes
 - c) Polkissen cells
 - d) Microglial cells
27. Fenestrated capillaries are present in
- a) Gastrointestinal tract
 - b) Endocrine glands
 - c) Both a and b
 - d) None of the above
28. The embryo is suspended in the
- a) Allantoic sac
 - b) Yolk sac
 - c) Chorionic sac
 - d) Amniotic sac
29. The Juxtaglomerular apparatus includes
- a) Macula densa.
 - b) Juxtaglomerular cells.
 - b) Extrajlomerular mesangial cells.
 - d) All the above
30. Intercalated discs present in the
- a) Smooth muscle
 - b) Skeletal muscle
 - c) Cardiac muscle
 - d) None of the above

31. Enzyme secreting cell in fundic glands of stomach

- a) Parietal cell
- b) Argentaffin cell
- c) Chromaffin cell
- d) Chief cell

32. Type of cleavage pattern in mammals

- a) Holoblastic cleavage
- b) Meroblastic cleavage
- c) Both a and b
- d) None the above

33. The reproductive systems develop from

- a) Paraxial mesoderm
- b) Intermediate mesoderm
- c) Lateral mesoderm
- d) None of the above

34. Three embryonic germ layers derived from

- a. Cytotrophoblast cells
- b. Syncytiotrophoblast cells
- c. Inner cell mass
- d. None of the above

35. The enamel is secreted from

- a) Cementocytes
- b) Odontoblasts
- c) Ameloblasts
- d) None of the above

36. The life span of red blood cells is

- a) 120 days
- b) 70 days
- c) 200 days
- d) 50 days

37. Synapse is

- a) Association of neuron with another neuron
- b) Association of neuron with smooth muscle
- c) Association of neuron with epithelial cell
- d) Association of neuron with skeletal muscle.

38. Periarterial lymphatic sheath

- a) Is described in the bone marrow
- b) Is described in the splenic tissue
- c) Is described in the lymphnode

- d) Is described in the tonsils.
39. Assembly of similar cells and extra cellular products that perform a specific function
- a) Cell
 - b) Organ
 - c) Tissue
 - d) System
40. Cells which present chromatin arranged in peripherally located clumps or centrally covering strands that gives a nucleus a cart wheel appearance
- a) Macrophage cell
 - b) Plasma cell
 - c) Neutrophil
 - d) None of the above
41. Mode of secretion of milk in mammary gland
- a) Merocrine
 - b) Holocrine
 - c) Apocrine
 - d) None of the above
42. Cartilage are normally
- a) Avascular
 - b) Aneural
 - c) Alyphatic
 - d) All the above
43. Porous capillaries are present in
- a) Gastrointestinal tract
 - b) Kidney glomerulus
 - c) Endocrine glands
 - d) Liver
44. The vascular tunics of the eye
- a) Cornea
 - b) Ciliary body
 - c) Sclera
 - d) All the above
45. The lumen of the alveolus is lined by
- a) Simple squamous epithelium
 - b) Simple cuboidal epithelium
 - b) Simple columnar epithelium
 - d) Stratified squamous epithelium
46. Fertilization occurs in
- a) Infundibulum

- b) Isthmus
 - c) Ampulla
 - d) None of the above
47. The first site of haematopoiesis is
- a) Hind gut region
 - b) Mid gut region
 - c) Yolk sac region
 - d) All the above
48. Genital ducts are derived from
- a) Intermediate mesoderm
 - b) Lateral mesoderm
 - c) Somatic mesoderm
 - d) Splanchnic mesoderm
49. Differentiation of male genital system based on
- a) Absence of Testis determining factor
 - b) Anti-Mullarian Hormone (AMH)
 - c) Presence of Testis determining factor
 - d) None of the above
50. Lens and cornea are derived from
- a) Endoderm
 - b) Mesoderm
 - c) Ectoderm
 - d) None of the above
51. Tendon and ligaments consists of
- a) Adipose tissue
 - b) Dense regular connective tissue
 - c) Dense irregular connective tissue
 - d) Loose connective tissue
52. A series of organs, which are structurally and functionally related to perform a major function.
- a) Cell
 - b) Organ
 - c) Tissue
 - d) System
53. Mode of secretion is an unusual transfer of secretory material from one cell to the cytoplasm of another cell
- a) Merocrine
 - b) Holocrine
 - c) Apocrine
 - d) Cytocrine

54. Position of nucleus in skeletal and cardiac muscle
- Peripheral
 - Central
 - Middle
 - None of the above
55. Differentiation of female genital system based on
- Absence of Testis determining factor
 - Absence of Anti Mullarian Hormone
 - Both a and b
 - None of the above
56. The life span platelets are
- Few weeks
 - Few days
 - Few months
 - None of the above
57. Liver is develops from
- Fore gut
 - Mid gut
 - Hind gut
 - None of the above
58. A strong connective tissue sheath surrounds the entire nerve is called as
- Epineurium
 - perineurium
 - Endoneurium
 - None of the above
59. The abomasum is lined by
- Simple columnar epithelium
 - Transitional epithelium
 - Simple cuboidal epithelium
 - Stratified squamous epithelium
60. Type of placenta in ruminants
- Cotyledonary
 - Diffuse
 - Zonary
 - Discoid
61. The shape of the sternum in horse
- Canoe
 - Fork
 - Pyramid
 - Shuttle

62. In dog, the joint between radius and ulna at either end are
- Condyloid
 - Arthrodia
 - Ginglymus
 - Pivot.
63. In horse, the flexion of knee joint after severe exertion is prevented by
- Collateral ligament
 - Capsular ligament
 - Check ligament
 - Interosseous ligament.
64. Number of digits in foot of fowl
- 4
 - 2
 - 3
 - 5
65. The second phalanx is called as
- Os coroneae
 - Os suffraginis
 - Os pedis
 - Os secundus
66. Articulation between first and second sternebrae in ox is
- Suture
 - Syndesmosis
 - Synchondroses
 - Diarthrosis
67. Pastern joint is a
- Arthrodia
 - Condyloid joint
 - Ginglymus
 - Enarthroses
68. The insertion tendon of gastrocnemius muscle form
- Prepubic tendon
 - Tendo achilles
 - Cunean tendon
 - Extensor tendon
69. The obturator foramen in horse is formed by
- Ilium & Pubis
 - Ilium & Ischium
 - Ischium & sacrum
 - Ischium & Pubis

70. The lateral boundary of pelvic inlet is marked by
- Ilio-pectineal line
 - Gluteal line
 - Crest of ilium
 - Pubic symphysis.
71. The medial surface of the vertical ramus of the mandible presents about the middle
- Mandibular foramen
 - Lingual foramen
 - Mental foramen
 - Alveolar foramen
72. The number of intercostal arteries in horse
- 13 pair
 - 12 pair
 - 18 pair
 - 22 pair
73. The colorless tissue fluid drained by lymphatics
- Lymph
 - Cerebrospinal fluid
 - Synovial fluid
 - Blood
74. The ventral part of the cerebral peduncle consist of
- Crus cerebri
 - Tegmentum
 - Substantia nigra
 - Red nucleus
75. From the middle of cervical region to lumbar region of spinal cord there is a medial projection of grey matter at the ventral part of dorsal grey horn is known as
- Nucleus globosus
 - Nucleus fastigi
 - Nucleus emboliformis
 - Nucleus dorsalis
76. Chorda tympani nerve is a branch of
- Facial nerve
 - Trigeminal nerve
 - Abduscent nerve
 - Glossopharyngeal nerve
77. The fold of duramater situated between cerebrum and cerebellum
- Falx cerebri
 - Arachnoid granulation
 - Chorioid plexus
 - Tentorium cerebelli

78. The dorsal surface of hippocampus is covered with white matter called
- Sylvius
 - Corpus striatum
 - Alveus
 - Corpus albicans
79. The subarachnoid cistern extending from the pituitary gland to the pons
- Cisterna basalis
 - Cisterna fossa lateralis
 - Cisterna pontis
 - Cisterna magna
80. The spinal pia mater forms a thickening along the mid ventral line
- Ligamentum denticulatum
 - Linea splendens
 - Tela choriodea of 3rd ventricle
 - Tela choriodea of 4th ventricle
81. The optic tract arises from
- Lateral geniculate body
 - Medial geniculate body
 - Coronal gyrus
 - Sigmoid gyrus
82. The medullated nerve fibres that connect the two cerebral hemispheres
- Projection fibres
 - Association fibres
 - Commissural fibres
 - Purkinje fibres
83. Alimentary canal is a
- Membranous tube
 - Muscular tube
 - Musculomembranous tube
 - Musculocartilagenous tube.
84. The space between the root of the tongue, soft palate and epiglottis is
- Hyo-epiglottic space
 - Glosso-epiglottic space
 - Vestibule
 - Glosso pharyngeal space.
85. Cavum oris is triangular in shape in
- Fowl
 - Rabbit
 - Ox
 - horse
86. Muzzle is absent in
- Ox

- b) Dog
- c) Horse
- d) fowl

87. Frenula labii extends from

- a) Lips to gums
- b) Gums to tongue
- c) Tongue to floor of the mouth
- d) upper lip to lower lip.

88. Oral breathing is not possible in

- a) Equidae
- b) Ruminants
- c) Canines
- d) fowl

89. Identify the Gustatory papilla

- a) Filiform
- b) Lenticular
- c) Vallate
- d) Mechanical

90. Which one of the following is not a part of vascular tunic of the eye ball

- a) Iris
- b) Ciliary body
- c) Choroid
- d) Cornea

91. Corneal nerve is a branch of

- a) Ophthalmic nerve
- b) Maxillary nerve
- c) Mandibular nerve
- d) None of the above

92. The following vein is used to collect blood in the ox

- a) Internal Jugular vein
- b) External Jugular vein
- c) Cephalic vein
- d) None of the above

93. The right ventricle is guarded by

- a) Bicuspid valve
- b) Tricuspid valve
- c) Both
- d) None of the above

94. The collection of cell bodies within the brain called as

- a) Nuclei
- b) Ganglion
- c) Both
- d) None of the above

95. Pinna of the ear is made up of

- a) Conchal cartilage
- b) Annular cartilage
- c) Scutiorm cartilage
- d) All of the above

96. Infundibulum in the horse tooth is filled up with

- a) Enamel
- b) Cement
- c) Pulp
- d) dentine

97. Largest salivary gland in Horse

- a) Mandibular
- b) zygomatic
- c) Parotid
- d) sublingual

98. Pharynx communicates with the tympanic cavity through

- a) Ductus incisivus
- b) Eustachian tube
- c) Wharton's duct
- d) auditus oesophagi

99. Which one of the following does not transmit blood vessels and nerves?

- a) Omentum
- b) Mesentery
- c) Ligament
- d) mesorectum

100. Omasum is situated on the right side which extends form

- a) 8-10th rib
- b) 6-8th rib
- c) 7-11th rib
- d) 6-10th rib

101. Nasal cavity is separated from the oral cavity by means of

- a) Hard palate
- b) Ethmoid
- c) Nasal septum
- d) Premaxilla

102. Osseous part of the Nasal septum is formed by

- a) Turbinates

- b) Nasal bone
 - c) Perpendicular plate of ethmoid
 - d) Maxilla
103. The only paired cartilage of the larynx in ox is
- a) Cricoid
 - b) Arytenoid
 - c) Epiglottis
 - d) Thyroid
104. Tracheal bifurcation takes place at the level of
- a) 5th rib
 - b) 3rd rib
 - c) 6th rib
 - d) 7th rib
105. Diaphragm is absent in
- a) Dog
 - b) Sheep
 - c) Birds
 - d) dog
106. Round ligament of urinary bladder is a remnant of
- a) Coeliac artery
 - b) Hepatic artery
 - c) Umbelical artery
 - d) External iliac artery
107. Sense of smell is carried through the
- a) Optic nerve
 - b) Vestibulocochlear nerve
 - c) Olfactory nerve
 - d) All the above
108. The left ventricle is guarded by
- a) Tricuspid valve
 - b) Bicuspid valve
 - c) Both
 - d) None of the above
109. Superficial lymph node is
- a) Axillary
 - b) Prescapular
 - c) Sacral
 - d) None of the above
110. The middle uterine artery is a branch of
- a) Internal iliac artery
 - b) Internal spermatic artery

- c) External iliac artery
- d) None of the above

111. Tapetum lucidum is absent in
- a) Ox
 - b) Pig
 - c) Horse
 - d) Dog
112. Horn is supplied by
- a) Facial nerve
 - b) Buccal nerve
 - c) Cornual nerve
 - d) None of the above
113. Nutritional blood supply to the lung is by
- a) Pulmonary vein
 - b) Bronchial artery
 - c) Pulmonary artery
 - d) None of the above
114. The portal vein collect blood from
- a) Thoracic cavity organ
 - b) Abdominal visceral organ
 - c) Pelvic visceral organ
 - d) None of the above
115. Number of polygonal surface lobes in the kidney of ox is
- a) 6
 - b) 12
 - c) 30
 - d) 20
116. The Shell gland in fowl is
- a) Magnum
 - b) Isthmus
 - c) Uterus
 - d) Vagina
117. The oesophageal glands are present in
- a) Mucosa
 - b) Submucosa
 - c) Lamina propria
 - d) T. muscularis.

118. Parietal and visceral layers of Bowmans capsule is lined by
- Simple cuboidal cells
 - Simple columnar cells
 - Simple squamous cells
 - Pseudostratified columnar cells.
119. Cell types of parathyroid gland are
- Chief cells & oxyphil cells
 - Chief cells & parietal cells
 - Alpha cells & delta cells
 - Delta cells & beta cells
120. Erythrocytes are nucleated in
- Horse
 - Dog
 - Fowl
 - Sheep.
121. Tapetum lucidum of eye is associated with
- Cornea
 - Sclera
 - Iris
 - Choroid
122. Point of origin of axon from the nerve cell body is
- Axon hillock
 - Telodendria
 - Node of Ranvier
 - dendrite
123. Valves of the vein are derived from
- Tunica adventitia
 - Tunica media
 - Tunica intima
 - Tunica fibrosa.
124. Chromophil substance present in the neuroplasm of nerve cell body are
- Negri bodies
 - Nissl bodies
 - Hassel bodies
 - Herring bodies.
125. Connective tissue enveloping each fascicle of skeletal muscle is called
- Epimysium
 - Perimysium
 - Endomysium
 - Ectomysium.

126. Which organelle play important role in early stage of mitosis
- Mitochondria
 - Nucleus
 - Nucleolus
 - Centriole
127. Alpha & beta cells of Islets of Langerhans secrete
- Renin & angiotensin
 - Glucagon & insulin
 - Pepsin & renin
 - Glucagon & somatostatin
128. The group of cells present in the concavity between the efferent and afferent arteriole in the kidney are
- Polkissen cells
 - Podocytes
 - Macula densa
 - Glomerular cells.
129. The specialized granular cells in the fundus of intestinal glands are
- Argentaffin cells
 - Paneth cells
 - Enterochromaffin cells
 - Chromaffin cells.
130. Identify the avascular part of the eye ball
- Sclera
 - Choroid
 - Cornea
 - Retina
131. After ovulation, ovum is enveloped in
- Zona pellucida
 - Corona radiata
 - Theca interna
 - Zona pellucida and corona radiate.
132. In peripheral nervous system the myelin is provided to an axon by
- Oligodendrogliaocytes
 - Schwann cells
 - Astroglial cells
 - Microglial cells.
133. Which of the following is involved in protein synthesis
- Mitochondria
 - Ribosomes
 - Microtubules
 - Nucleus.

134. Descemet's membrane is present in
a) Retina
b) Lens
c) Sclera
d) Cornea.
135. The pelvic urethra is lined by
a) Stratified squamous epithelium
b) Simple columnar epithelium
c) Transitional epithelium
d) Columnar ciliated epithelium
136. Ebner's glands are present in
a) Circumvallate papilla
b) Foliate papilla
c) Fungiform papilla
d) Filiform papilla
137. Sub mucous duodenal glands are also called as
a) Ebner's glands
b) Brunner's glands
c) Malpighian glands
d) Crypts of Lieberkuhn
138. Carminophils of the pars anterior produces
a) Somatotrophin
b) TSH
c) FSH
d) Prolactin
139. Intercalated discs are seen in
a) Skeletal muscle
b) Smooth muscle
c) Cardiac muscle
d) Vertebrae
140. Gastric glands are
a) Simple tubular
b) Simple branched alveolar
c) Simple branched tubular
d) Simple alveolar
141. Huxley's layer of hair follicle is seen in
a) Outer epithelial root sheath
b) Inner epithelial root sheath
c) Connective tissue sheath

- d) Medulla
142. An example for cytogenous gland
- a) Parotid
 - b) Mammary gland
 - c) Ovary
 - d) Kidney
143. Bipolar neurons are found in
- a) Ventral horn of spinal cord
 - b) White matter of spinal cord
 - c) Olfactory epithelium
 - d) Spinal ganglia
144. Muscularis mucosae is absent in
- a) Omasum
 - b) Abomasum
 - c) Pylorus
 - d) Rumen
145. The largest leucocyte is
- a) Neutrophil
 - b) Monocyte
 - c) Basophil
 - d) Lymphocyte
146. Cleavage in mammals is
- a) Discoidal
 - b) Equal holoblastic
 - c) unequal holoblastic
 - d) Meroblastic
147. Foetal membrane in which the earliest blood forming cells appear
- a) Amnion
 - b) Allantois
 - c) Chorion
 - d) Yolk sac
148. Syndesmochorial placenta is found in
- a) Ruminants
 - b) Equines
 - c) Canids
 - d) Felids
149. Meckel's cartilage is the mesenchymal core of
- a) Maxillary process
 - b) Mandibular process
 - c) Second branchial arch

- d) Third branchial arch
150. Teeth develop from
a) Ectoderm only
b) Entoderm only
c) Ectoderm and mesoderm
d) Entoderm and mesoderm
151. Mullerian duct develops into
a) Female reproductive tract
b) Rathkes pouch
c) Male reproductive tract
d) Septum transversum
152. Archenteron is the cavity of
a) Blastula
b) Gastrula
c) Morula
d) Blastocyst
153. Yolk is absent in
a) Microlecithal egg
b) Mesolecithal egg
c) Macrolecithal egg
d) Alecithal egg
154. Sensory innervations to the rostral two third of the tongue is by
a) Glossopharyngeal nerve
b) Vestibulocochlear nerve
c) Vagus nerve
d) None of the above
155. White mater of the brain consists of
a) Nerve cells
b) Nerve fibers
c) Both a and b
d) None of the above
156. The mid brain consists of
a) Corpora quadrigemina
b) Cerebral peduncles
c) Both a and b
d) None of the above
157. The largest, longest and most powerful muscles in the body.
a) Longus colli

- b) Ilio costalis Muscle
 - c) Longissimus dorsi
 - d) None of the above
158. Inguinal canal is present at
- a) Roof of the abdomen (caudal part)
 - b) Floor of the thoracic cavity
 - c) Floor of the pelvic cavity
 - d) None of the above
159. Pinna of the ear is made up of
- a) Conchal cartilage
 - b) Annular cartilage
 - c) Scutiorm cartilage
 - d) All of the above
160. Before attachment to the bone epimysium, perimysium and endomysium unit to form
- a) Fascia
 - b) Tendon
 - c) Both a and b
 - d) None of the above
161. Cranial cutaneous antebrachial nerve is a branch of
- a) Radial nerve
 - b) Ulnar nerve
 - c) Axillary nerve
 - d) Musculocutaneous nerve
162. The brain get blood supply from the
- a) Internal carotid artery
 - b) Condylar and vertebral artery branch
 - c) Branches from maxillary artery
 - d) All the above
163. The Cornual artery is a branch of
- a) Facial artery
 - b) Lingual artery
 - c) Superficial temporal artery
 - d) Malar artery
164. The superficial lymph node in the body
- a) Axillary lymph node
 - b) Popliteal lymph node
 - c) Mediastinal lymph node
 - d) None of the above
165. The guttural pouch present in
- a) Ox
 - b) Horse

- c) Pig
 - d) Dog
166. Which is following is a mixed nerve
- a) Optic
 - b) Abducent
 - c) Hypoglossal
 - d) None of the above
167. The space between the duramater of spinal cord and periosteum of vertebral ring is called as
- a) Subdural space
 - b) Central canal
 - c) Epidural space
 - d) Subarachnoid cisterna
168. Optic nerve is surrounded by
- a) Dorsal rectus
 - b) Retractor oculii
 - c) Ventral rectus
 - d) Orbicularis oculi
169. The vein used to collect the blood in fowl
- a) Cephalic vein
 - b) Femoral vein
 - c) Wing vein
 - d) Jugular vein
170. Sensory innervations to the rostral two third of the tongue is by
- a) Vagus nerve
 - b) Vestibulocochlear nerve
 - c) Glossopharyngeal nerve
 - d) None of the above
171. White mater of the brain consists of
- a) Nerve fibers
 - b) Nerve cells
 - c) Both a and b
 - d) None of the above
172. The mid brain consists of
- a) Cerebral peduncles
 - b) Corpora quadrigemina
 - c) Both a and b
 - d) None of the above
173. The largest, longest and most powerful muscles in the body.
- a) Longus colli

- b) Gastronomies
- c) Ilio costalis Muscle
- d) None of the above

174. lateral cutaneous sural nerve is a branch of

- a) common peroneal nerve
- b) tibial nerve
- c) popliteal nerve
- d) none of the above

175. The ganglion of the parasympathetic part are located

- a) Parallel to thoracolumbar trunk
- b) on / near the organ of innervations
- c) At the origin of spinal nerve
- d) at middle of nerve trunk

176. Middle eye tunic is known as

- a) Fibrous
- b) Nervous
- c) Vascular
- d) none of the above

Key”

S.No.		S.No.		S.No.		S.No.	
1.	C	45.	A	89.	C	133.	B
2.	C	46.	C	90.	D	134.	D
3.	D	47.	C	91.	A	135.	C
4.	B	48.	A	92.	B	136.	A
5.	A	49.	C	93.	B	137.	B
6.	A	50.	C	94.	A	138.	D
7.	B	51.	B	95.	D	139.	C
8.	A	52.	D	96.	B	140.	C
9.	B	53.	D	97.	C	141.	B
10.	B	54.	A	98.	B	142.	C
11.	D	55.	A	99.	C	143.	C
12.	A	56.	B	100.	C	144.	D
13.	C	57.	B	101.	A	145.	B

14.	D	58.	A	102.	C	146.	B
15.	A	59.	A	103.	B	147.	D
16.	C	60.	A	104.	A	148.	A
17.	C	61.	A	105.	C	149.	B
18.	A	62.	D	106.	C	150.	C
19.	B	63.	C	107.	C	151.	A
20.	A	64.	A	108.	B	152.	B
21.	D	65.	A	109.	B	153.	D
22.	B	66.	D	110.	A	154.	D
23.	B	67.	C	111.	B	155.	B
24.	C	68.	B	112.	C	156.	C
25.	B	69.	D	113.	B	157.	C
26.	D	70.	A	114.	B	158.	D
27.	C	71.	A	115.	D	159.	D
28.	D	72.	C	116.	C	160.	B
29.	D	73.	A	117.	B	161.	C
30.	C	74.	A	118.	C	162.	D
31.	D	75.	D	119.	A	163.	B
32.	B	76.	A	120.	C	164.	D
33.	B	77.	D	121.	D	165.	B
34.	C	78.	C	122.	A	166.	D
35.	C	79.	C	123.	C	167.	C
36.	A	80.	B	124.	B	168.	B
37.	A	81.	A	125.	B	169.	C
38.	B	82.	C	126.	D	170.	D
39.	C	83.	C	127.	B	171.	A
40.	B	84.	B	128.	A	172.	C
41.	C	85.	A	129.	B	173.	D
42.	D	86.	D	130.	C	174.	A

43.	B	87.	A	131.	D	175	B
44.	B	88.	A	132.	B	176	C

**ICAR-JRF Model Questions in the Subject of Veterinary
Surgery and Radiology**

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-
1. The wounds of more than 6-8 hr duration are considered as _____ wound
 - a) Contaminated
 - b) Infected
 - c) Surgical
 - d) None
 - e)
 2. The symptoms that are likely to be noticed in a fracture are
 - a) Abnormal mobility
 - b) Crepitus & loss of function
 - c) Deformity
 - d) All
 3. 'Restrainer agent' used in the developer solution for processing the radiograph
 - a). Hydroquinone
 - b) Sodium Sulfite
 - c). Potassium Bromide
 - d) Sodium carbonate
 4. Typical sign of ripened abscess is
 - a. Swelling
 - b. Pain
 - c. Fluctuation
 - d. Pointing
 5. Right side displacement of abomasums is usually caused after
 - a) Immediately postpartum
 - b) 2-4 weeks postpartum
 - c) During gestation
 - d) 9-12 months postpartum
 6. Which of the following is the smallest compartment of the ruminant stomach?
 - a. Rumen
 - b. Reticulum
 - c. Omasum
 - d. Abomasum
 7. Wound does not heal is known as
 - a. Maggot wound
 - b. Ulcer

- c. Infected wound
- d. Contaminated wound

8. Last stage of wound healing is

- a. Wound contraction
- b. Epithelization
- c. Fibroplasia
- d. Vasodilatation

9. Tympany of diaphragmatic hernia is

- a) Recurrent
- b) Persistent
- c) Both 1 and 2
- d) None of the above

10. Obturator paralysis is more common in

- a) Mare
- b) Cow
- c) Bitch
- d) ewe

11. More than two fracture fragments with interconnecting fracture line in complete fracture is known as

- a. Multiple fracture
- b. Comminuted fracture
- c. Depressed fracture
- d. Fissure fracture

12. Pathognomic signs of fracture is

- a. Crepitation
- b. Pain
- c. Swelling
- d. Loss of function

13. The water used for moistening of POP cast should range between

- a. 3 -35 C
- b. 1 -2 C
- c. 2 -25 C
- d. 4 -45 C

14. The best procedure for complete diaphyseal fracture of tibia in bullock is

- a. POP
- b. Hanging pin cast
- c. Walking cast
- d. Thomas splint

15. If fracture is stabilized with rigid fixation the clinical union occur at

- a. 15-20 days
- b. 20-30 days
- c. 40-50 days

d.80-100 days

16. Typical radiographic sign of osteo-arthritis is
- Increased joint space
 - Decreased joint space
 - Irregular joint space
 - Irregular joint space with new bony growth
17. The radiographic signs of non union is
- Radiolucency between fragments
 - Increased radio density of either fragments
 - Placement of fragments side by side
 - Rounding of both fragments
18. The radiographic diagnosis of intestinal obstruction is done by using
- Barium sulphate
 - Conray -420
 - Urographin
 - Ipamidol
19. Which of the following is a oval articular projection?
- Condyle
 - Trochlea
 - Head
 - Facet
20. Protective wears for radiography are made up of
- Lead
 - Iron
 - Zinc
 - Tungste
21. The best treatment of long bone fracture is
- POP bandages
 - Intramadulary pinning
 - Intramadulary nailing
 - Bone plating
22. Suturing of lacerated nostril is performed under nerve block
- Infra-orbital
 - Retro bulbar
 - Mandibular
 - Supra-orbital
23. Extirpation of incisor tooth in cattle is performed under nerve block
- Infra-orbital
 - Mandibular
 - Retro bulbar
 - Cornual

24. The best anaesthetic technique for laparotomy in cattle is
- Local infiltration
 - Paravertebral
 - Field block
 - Anterior caudal epidural
25. Docking in adult dog is performed under
- Epidural
 - Local infiltration
 - Ring block
 - General anaesthesia
26. General anesthesia of equine is performed now a days by using
- Chloral hydrate
 - Xylazine
 - Xylazine + Ketamine
 - Chlormag
27. The best general anesthetic for canine is
- Xylazine
 - Thiopental
 - Acepromazine
 - Ketamine
28. To deliver live pups, cesarean section is performed under
- Thiopentone
 - Pentobarbitone
 - Acepromazine
 - Diazepam + Local anesthesia
29. To capture wild elephant the anesthetic used is
- Xylazine
 - Etorphine
 - Medazolam
 - Morphin 53
30. The sedation in camel is performed by using xylazine intravenously
- 2-3 ml
 - 8-10 ml
 - 25 -30 ml.
 - 30-40 ml
31. The best inhalation anesthetic for closed circuit is
- Cyclopropane
 - Ether
 - Nitrous oxide
 - Chloroform
32. Deep chested dog is prone to following surgical condition
- Intestinal obstruction

- b. Diaphragmatic hernia
 - c. Gastric dilatation and torsion
 - d. Gastric ulcer
33. Pathognomic sign of sharp molar is
- a. Quidding
 - b. Halitosis
 - c. Salivation
 - d. All of above
34. The development of pouch in lower neck just after feeding in case of buffalo is noticed in
- a. Pyloric stenosis
 - b. Oesophageal ulcer
 - c. Choke
 - d. Oesophageal diverticulum
35. Continuous lacrimation in canine is characteristic sign of
- a. Obstruction of lacrimal duct
 - b. Entropion
 - c. Conjunctivitis
 - d. Ectropion
36. Myringotomy in canine is performed for the correction of
- a. Otitis interna
 - b. Otitis media
 - c. Otitis externa
 - d. Othaematoma
37. Which one of the followings not an anaesthetic?
- a) Phencyclidine
 - b) Xylazine
 - c) Ketamine
 - d) Cyclopropane
38. Diazepam does not possess the following action
- a) Sedative
 - b) Anticonvulsant
 - c) Analgesic
 - d) Anxiolytic
39. The full life of drug is usually approximately
- a) Twice its half-life
 - b) Ten times its half- life
 - c) Five times its half- life
 - d) None of the above
40. The following is not a phenothiazine derivative
- a) Triflupromazine
 - b) Chlorpromazine
 - c) Promazine
 - d) Reserpine

41. Xylazine does not have the following effect
- Analgesic
 - Muscle relaxant
 - Sedative
 - Antipyretic
42. Which one of the following has high water to lipid partition coefficient?
- Chlorpromazine
 - Ether
 - Halothane
 - None of the above
43. With which of the following anaesthetic is eructation reflex not affected.
- Ketamine
 - Xylazine
 - Phenobarbitone
 - Equithesin
44. Which of the following statements is false?
- Thiopentone is ultra short acting barbiturate
 - Thiopentone is administered by intramuscular route
 - Thiopentone administered typically shows barbiturate apnoea.
 - Thiopentone is yellowish powder used as a sodium salt.
45. The non-invasive confirmative diagnosis of diaphragmatic hernia in buffalo is
- Auscultation
 - Contrast radiography
 - Rumenotomy
 - Plain radiography
46. Liptek test is performed for the diagnosis of
- LDA
 - Vagal indigestion
 - Ruminal acidosis
 - Ruminal tympany
47. Metallic foreign bodies are mostly recovered from
- Esophagus
 - Reticulum
 - Rumen
 - Abomasum
48. The basic cause of vagal indigestion in cattle is
- Trauma
 - Inflammatory conditions
 - Ruminal impaction
 - Liver dysfunction
49. Distal intestinal obstruction in bullock is diagnosed by
- Clinical signs
 - Hematology

- c. Per rectal examination
 - d. History
50. Common site for obstructive uroliths in bullock is
- a. Prescrotal
 - b. Neck of bladder
 - c. Pelvic urethra
 - d. Post scrotal
51. The surgical correction of teat pea in cattle is performed by
- a. Teat slitter
 - b. Hudson teat spider
 - c. Teat tumour extractor
 - d. Teat dilator
52. Umbilical hernia is most commonly seen in
- a. Cattle
 - b. Dog
 - c. Pig
 - d. Horse
53. During surgery arterial bleeding is controlled by
- a. Haemostat
 - b. Thumb forceps
 - c. Allies tissue forcep
 - d. Rat tooth forceps
54. The best technique for making instruments germ free is
- a. Direct flame
 - b. Boiling water
 - c. Chemical
 - d. Autoclave
55. Sweeny is characterized by atrophy of
- a. All muscles
 - b. Gastrocnemious muscle
 - c. Scapular muscle
 - d. None of above
56. Laminitis means that
- a. Animal walks lame
 - b. Inflammation of joints
 - c. Inflammation of laminae
 - d. None of above
57. Treatment of upward fixation of patella
- a. Planter tenotomy
 - b. Medial patellar desmotomy
 - c. Middle patellar desmotomy
 - d. Cunion tenotomy

58. Inflammation of stifle joint is known as
- Laminitis
 - Omarthritis
 - Gonitis
 - Joint mice
59. Oozing of inflammatory exudates at coronary band in horse hoof is known as
- Arthritis
 - Side bones
 - Quittor
 - Curb
60. Abnormal large amount of granulation tissue is known as
- Proud flesh
 - Callus
 - Adenoma
 - Wound
61. Who introduced the basic principles of surgery
- W. S. Halsted
 - Joseph Lister
 - W. T. G. Morten
 - Michal Harward
62. Gangrene occurs most commonly in buffaloes at
- Udder
 - Ear pinna
 - Tail
 - All of above
63. Perineal hernia is common in
- Mares 103
 - Castrated dogs
 - Spayed bitches
 - Adult uncastrated dogs
64. Peterson's block is practiced to anaesthetize
- T6eeth
 - Eye
 - Flank
 - Limb
65. If the content of hernia is urinary bladder, then it is termed as
- Enterocoele
 - Epiplocele
 - Vesicocoele
 - Hysterocele
66. Radical surgery is done to
- Conserve damaged tissue
 - Remove damaged tissue
 - Eliminate root cause

- d. Correct malformations
67. Preanesthetic medication is employed to make
- Induction of anaesthesia smooth
 - Recovery complication minimum
 - Animal more controllable
 - All of above
68. Reaction of living tissue to injury is known as
- Infection
 - Inflammation
 - Infestation
 - Sarcoma
69. Irreducibility of hernia is a due to
- Adhesion
 - Strangulation
 - Incarceration
 - All of above
70. One of the following is the congenital defect of eye
- Dermoid cyst
 - Hypopia
 - Exophthalmos
 - Corneal ulcer
71. Exposure factor for taking radiograph is
- mA
 - kVp
 - Second
 - All of above
72. Amputation of horn can be done under
- Cornual nerve block
 - Caudal epidural
 - Anterior epidural
 - Retrobulbar nerve block
73. Adhesion of iris to cornea is known as
- Anterior synechia
 - Posterior synechia
 - Epiphora
 - Chemosis
74. Surgical operation for providing drainage from middle ear is known as
- Zepps' operation
 - Bulla osteotomy
 - Hyovertebrotomy
 - Ventriculectomy

75. FFD for taking diagnostic radiography should be
- Minimum
 - 90 cm
 - 36 inch
 - Maximum
76. Reflecting layer is present in
- X-ray film
 - X-ray tube
 - Intensifying screen
 - All the above
77. Frequency mainly used for the purpose of diagnostic ultrasound
- 1 to 10 MHz
 - More than 50 MHz
 - Less than 20000Hz
 - None of the above
78. Barium sulphate is exclusively used for
- Outlining alimentary tract
 - Outlining urinary tract
 - Outlining spinal canal
 - Outlining abdominal cavity
79. Reducing agent used in x-ray developer
- Metol
 - Sodium carbonate
 - Potassium bromide
 - Sodium sulphite
80. Lambert pattern suture is used in?.....hollow organs
81. Complication of pyloric stenosis is?.....hypertrophy of gastric mucosa
83. Longest bone of hind limb?.....femur
84. By reduction which fracture can be healed easily?.....long bone oblique fracture
85. Unit of measurement for energy of X-ray?.....eV
86. A good X-ray film will have?.....(high contrast b/n adjuscent area,low contrast b/n adjuscent area)
87. Perineal urethrotomy is indicated in?.....post. obstruction in os penis
88. Anesthesia used in reptiles?.....ketamine
89. Condition in which scrotal ablation is advised?.....neoplasm
90. Removal of both ovaries and uterus?.....pan hysterectomy
91. Cryosurgery is done by using?.....liquid N₂
92. Common absorbable suture material used in surgery?.....catgut
93. Oesophagectomy means?.....cutting a segment of esophagus
94. Tension band wiring is used in â (type of fracture) Avulsion fracture.

Key:

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1.	a	21	d	41	d	61	a
2.	d	22	a	42	b	62	c
3.	a	23	b	43	a	63	d
4.	a	24	b	44	b	64	b
5.	b	25	d	45	b	65	c
6.	b	26	c	46	a	66	c
7.	b	27	b	47	b	67	d
8.	a	28	d	48	b	68	b
9.	a	29	b	49	c	69	d
10	b	30	b	50	d	70	a
11	b	31	a	51	c	71	d
12	a	32	c	52	a	72	a
13	a	33	d	53	a	73	a
14	d	34	d	54	d	74	b
15	c	35	a	55	c	75	b
16	d	36	a	56	c	76	c
17	d	37	b	57	b	77	c
18	a	38	c	58	c	78	a
19	a	39	a	59	c	79	a
20	a	40	d	60	a	80	

**ICAR-JRF Model Questions in the Subject of Veterinary
Public Health and Epidemiology**

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1. The Standard Plate Count of pasteurized milk per ml should not exceed
 - a) 20,000
 - b) 30,000
 - c) 40,000
 - d) 50,000`
2. Curdling and ripening of milk is affected by
 - a) Antibiotic residues
 - b) Pesticide residues
 - c) Insecticide residues
 - d) growth hormone
3. After post-mortem changes, muscle gets converted to meat and attain a pH known as
 - a) Low pH
 - b) Final pH
 - c) Ultimate pH
 - d) Acidic pH
4. Whiskers are seen upon spoilage at
 - a) Carcass surface
 - b) Deeply in organs
 - c) Near bone
 - d) Brain
5. Ropiness in milk is caused by
 - a) *E.coli*
 - b) *Alcaligenesviscolactis*
 - c) *Staph aureus*
 - d) *Strep. Fecalis*
6. Following animal can be slaughtered
 - a) Pregnant
 - b) Emaciated
 - c) Pyrexia
 - d) Limb fractured
7. Temperature of knife sterilizer kept in slaughter house (in degree centigrade).
 - a) 62
 - b) 72

- c) 82
- d) 92

8. Name the organism that survives the pasteurization.
 - a) FMD virus
 - b) Coxiella burnetti
 - c) Clostridium botulinum
 - d) Yersinia enterocolitica
9. Tick borne encephalitis (TBE) virus is food borne since it is transmitted by
 - a) Cow milk
 - b) Buffalo milk
 - c) Camel milk
 - d) Goat milk
10. Bovine spongiform encephalopathy (BSE) is caused by.
 - a) virus
 - b) prion
 - c) virus like particle
 - d) viroid
11. The pH of normal cow milk is
 - a) 7.4
 - b) 4.5
 - c) 6.6
 - d) 7.5
12. Chloride test is done to diagnose
 - a) Q fever
 - b) Mastitis
 - c) Brucellosis
 - d) Tuberculosis
13. In HTST method of pasteurization milk is exposed to
 - a) 72⁰C
 - b) 63⁰C
 - c) 81.5⁰C
 - d) 100⁰C
14. Streptococci are associated with
 - a) Scarlet fever
 - b) Icteric fever
 - c) Undulant fever
 - d) RaVt fever
15. Intensity of light at inspection points in abattoir (in Lux)
 - a) 210
 - b) 320
 - c) 430
 - d) 540

16. Carcass is partially disposed off under condition(s)
 - a) Generalized TB
 - b) Jaundice
 - c) Bone taint
 - d) NCD
17. Target organ for antibiotic residue monitoring
 - a) Pancreas
 - b) Brain
 - c) Spleen
 - d) Kidney
18. Sterilized milk can be stored at ambient temperature for
 - a) Day
 - b) Week
 - c) Month
 - d) Year
19. Animals awaiting slaughter are off-fed for.
 - a) 3 Hrs.
 - b) 6 Hrs.
 - c) 12 Hrs.
 - d) 18Hrs.
20. Milch animal is the source of human infection in case of
 - a) *Salmonella Typhi*
 - b) *Vibrio cholare*
 - c) *Brucella meletensis*
 - d) *Entamoeba histolytica*
21. Microbial load in milk could be assessed indirectly by,
 - a) DMC
 - b) RRT
 - c) Curdling
 - d) Sourness
22. Platform test used for acceptance or rejection of milk
 - a) SPC
 - b) MBRT
 - c) CoB test
 - d) Antibiotic residue test
23. Micro-organisms able to grow in milk at 20⁰C-40⁰C are
 - a) Mesophiles
 - b) Thermophiles
 - c) Thermodurics
 - d) Psychrophiles
24. Sterilized milk gives
 - a) Negative turbidity test
 - b) Positive alcohol test
 - c) Negative CoB test

- d) Positive phosphatase test
25. Microbial growth inhibitors present in milk
- a) Lactoferrins
 - b) Lactic acid bacteria
 - c) Lactogens
 - d) Ribonucleases
26. Bactofugation process removes bacteria in milk by to the tune of
- a) 69%
 - b) 79%
 - c) 89%
 - d) 99%
27. Artificially prepared milk is referred as
- a) Reconstituted milk
 - b) Synthetic milk
 - c) Resynthesized milk
 - d) Artificial milk
28. CCP in poultry meat processing
- a) Chilling of carcasses
 - b) Meat cutting
 - c) Packing
 - d) Deboning
29. International agency that develops international and regional food standards is
- a) Codex Alimentarius
 - b) FAO
 - c) WHO
 - d) WTO
30. Irradiation of meat leads to.
- a) Radionuclide residues in meat
 - b) Pathogen inactivation
 - c) Nutrient loss
 - d) Cancer
31. Gutting is practiced during processing of which species meat
- a) Fish
 - b) Chicken
 - c) Pig
 - d) Quail
32. Following is not a canning defect
- a) Porging
 - b) Springer
 - c) Rusting
 - d) Bone taint

33. Aerobic method to dispose unsound meat
- Rendering
 - Alkaline hydrolysis
 - Composting
 - Biomethanation
34. Term zoonoses is coined by
- J H Steele
 - Rudolph Virchow
 - C W Schwabe
 - Robert Koch
 -
35. Cow pox protects man against small pox and was demonstrated by
- Edward Jenner
 - Luis Pasteur
 - Joseph Lister
 - Jules Burnet
36. Laboratory animals of choice used for rabies diagnosis is
- Rabbit
 - Mouse
 - G-pig
 - hamster
37. Brucellosis is classified as
- Direct zoonosis
 - Cyclozoonosis
 - Meta zoonosis
 - Saprozoonosis
38. Guillen barre syndrome is associated with
- Bacillus anthracis
 - Campylobacter jejuni
 - Toxoplasma gondii
 - Coxiella burnetii
39. Zoonosis not transmitted to human is
- Brucella suis
 - Brucella ovis
 - Brucella canis
 - Brucella melitensis
40. Histoplasma capsulatum is
- A saprophyte in the soil
 - Obligate intracellular pathogen
 - Fungi associated with superficial mycosis
 - Not zoonotic
 -
41. Candida albicans grows in presence of rabbit / human plasma and is characterized by
- Spore formation

- b) Motility
 - c) Germ tube formation
 - d) Inability to grow
42. Tubercle bacilli were discovered by
- a) Robert Koch
 - b) Luis Pasteur
 - c) Ivanovski
 - d) Roger Federer
43. Melioidosis is caused by
- a) *Burkholderia pseudomallei*
 - b) *Pseudomonas mallei*
 - c) *Bacillus mallei*
 - d) *Vibrio cholerae*
44. Rat-bite fever is caused by
- a) *Streptobacillus moniliformis*
 - b) *Leptospira icthaeorrhagias*
 - c) *Sporotrichum schencki*
 - d) *Apifia felis*
45. Microscopic Agglutination Test is widely applied for the diagnosis of
- a) Leptospirosis / Weil's disease
 - b) Erysepelas/ Erysepaloid
 - c) *Francisella tularensis*
 - d) Coccidioidomycosis
46. *Rhinopporidium seeberi* affects which part of human or animal body
- a) Oral cavity
 - b) Genital tract
 - c) Nose
 - d) Alimentary tract
47. Disease caused by *Borrelia burgdorferi* is known as
- a) Lyme disease
 - b) Q fever
 - c) Enteric fever
 - d) 3 day sickness
48. Dermatophyte of cat and dog most frequently transmitted to man is
- a) *Microsporum canis*
 - b) *Aspergillus fumigatus*
 - c) *Blastomyces dermatitidis*
 - d) *Trichophyton verrucosum*
49. Kanagawa phenomenon is used for the diagnosis of
- a) *Vibrio parahaemolyticus*
 - b) *Salmonella typhi*
 - c) *Yersinia enterocolitica*
 - d) *Campylobacter jejuni*

50. Nagler reaction is used for detection of
- Clostridia
 - Staphylococci
 - Streptococci
 - Enterobacteria
51. Cent percent fatal direct viral anthapozoonosis is
- Tuberculosis
 - BSE
 - Japanese encephalitis
 - Rabies
52. Zoonosis where herbivores act as intermediate hosts and carnivores act as definitive hosts
- Anthrax
 - Leishmaniosis
 - Hydatidosis
 - Simian Malaria
53. Measly pork is due to
- Cysticercu sbovis
 - Cysticercus cellulosae
 - Cysticercus pisiformis
 - Cysticercus suis
54. Mallein test is used for the diagnosis of
- Leptospirosis
 - Yellow fever
 - Glanders
 - Trichinellosis
55. Rice field workers disease is
- Leptospirosis
 - Erysiphelothricosis
 - Ringworm
 - Guinea worm
56. Transovarian transmission is possible in
- KFD
 - Japanese encephalitis
 - Dengue
 - Kala Azar
57. Disease characterized by circling in animals is
- Cysticercosis
 - Cutaneous larva migrans
 - Dermatophytosis
 - Listeriosis
58. Haemorrhagic colitis syndrome is seen in
- Escherichia coli
 - Salmonella enteritidis
 - Shigella flexneri

- d) *Clostridium perfringens*
59. Highly host adapted serotype
- Cryptosporidium parvum*
 - Salmonella gallinarum*
 - Microsporium canis*
 - Vibrio cholerae*
60. Zoonoses involving invertebrate hosts in their transmission cycle.
- Cyclozoonoses
 - Saprozoonoses
 - Direct zoonoses
 - Meta zoonoses
61. Iatrogenic diseases are induced by
- Environment
 - Hospital
 - Physician
 - Cosmos
62. Type of host invariably harboring the agent
- Reservoir
 - Carrier
 - Paratenic
 - Maintenance
63. An epidemiological measure that takes into account new cases
- Incidence
 - Prevalence
 - Case fatality
 - Morbidity
64. Example for ecological mosaic reaching climax
- Rabies
 - KFD
 - BSE
 - FMD
65. Recently observed pandemic
- Avian influenza H5N1
 - Crimean Congo hemorrhagic fever
 - Tuberculosis
 - Rabies
66. Epidemiology of zoonosis involving fleas, rodents and mammals
- Plague
 - Leptospirosis
 - Trypanosomiasis
 - Babesiosis
67. Epidemiological software developed by ICAR

- a. Epitrak
 - b. Handistaus
 - c. TDR
 - d. INFOSAN
68. Major vector of KFD in Karnataka is
- a. Pulex irritans
 - b. Musca domestica
 - c. Haemophysalis spinigera
 - d. Xenopsylla cheopis
69. Epornitics refers to disease outbreak in populations of
- a. Rabbits
 - b. Birds
 - c. Fish
 - d. Rodents
70. First stage of an epidemiological investigation
- a. Theoretical epidemiology
 - b. Descriptive epidemiology
 - c. Analytical epidemiology
 - d. Experimental epidemiology
71. Example for saprometazoonosis
- a. Echinococcosis
 - b. Fascioliosis
 - c. Trypanosomiasis
 - d. Babesiosis
72. National Environmental Engineering Research Institute is located at
- a. Hyderabad
 - b. Mumbai
 - c. Pune
 - d. Nagpur
73. Small liquid particle that has tendency to settle under calm atmospheric conditions.
- a. Droplet nuclei
 - b. Particle
 - c. Fog
 - d. Droplet
74. BOD is usually calculated for
- a. 5 days
 - b. 15 days
 - c. 25 days
 - d. 55 days
75. Artificial lakes constructed usually of earth work to store which large quantities of surface water
- a. Impounding reservoir
 - b. Tanks
 - c. Check bunds
 - d. Lagoon

76. A solid, liquid or gaseous substance present in such a concentration as may be found to be injurious to the environment is known as
- Contaminant
 - Pollutant
 - Hazard
 - Risk
77. Variety and variability among living organisms and ecological complexes determines
- Natural calamities
 - Green house effect
 - Biodiversity
 - Climate change
78. Any substance that is obtained from nature and can be transformed into a form that becomes valuable and useful for living beings is referred as
- Natural Resource
 - Reservoirs
 - Energy recycle
 - Resource
79. Use of naturally occurring microorganisms (such as bacteria, fungi, plants) to break down or degrade toxic chemicals accumulated in the environment is known as
- Bioremediation
 - Eutrophication
 - Biomagnification
 - Detoxification
80. Intensity of noise is measured in decibel (Db) units and the scale is
- Arithmetic
 - Logarithmic
 - Harmonic
 - Geometric
81. The process of heating-up of water bodies through run-off or discharge from industries leads to
- Thermal pollution
 - Global warming
 - Hydrological cycle
 - Thermoregulation
82. Circular winds blowing around poles are referred as
- Ozone Hole
 - Polar Vortex
 - Polar Caps
 - Polar Storms
83. Methane gas producing Methanogen organisms are
- Algae
 - Bacteria
 - Fungi
 - Yeast
84. Microbial indicators for potable water quality
- Coliforms
 - Salmonella
 - Listeria

d. Klebsiella

85. Principle of Katadyn filter
- Thermo dynamic
 - Osmosis
 - Reverse osmosis
 - Oligodynamic
86. Element of slow sand filter
- Cover box
 - Pipeline
 - Control valves
 - Thermometer
87. Chlorine as a water disinfectant has action on
- Vegetative bacteria
 - Spores
 - Viruses
 - Prion
88. Super Chlorination of water is followed by
- Dechlorination
 - Alum treatment
 - Filtration
 - Nothing is done, water is used as such
89. Process of destroying of all pathogenic organisms except spores is known
- Sanitization
 - Disinfection
 - Sterilization
 - Thermization
90. Salmonellae can survive in the farm environment for
- Days
 - Months
 - Years
 - Decades
91. Name Indian personality who won Nobel peace prize for his contribution towards climate change
- Dr. Rajendra Pachauri
 - Dr. Rajendra Chatarjee
 - Dr. C.N.R. Rao
 - Dr. P.K. Gupta
92. Particulate radiation comprises of
- Alpha particles
 - Gamma particles
 - Delta particles
 - Epsilon particles

93. Seismic activity map shows possibility of occurrence of
- Earthquake
 - Wind storm
 - Flood
 - Eclipse_
94. Kind of pneumoconiosis caused by inhalation of sugarcane dust and is due to the fungus *Acitinomyctes*
- Bagasossis
 - Anthacosis
 - Siderosis
 - Lumpy jaw
95. Excessive amount of oxides of sulphur and nitrogen in atmospheric water.
- Acid fall
 - Acid rain
 - Acid deposit
 - Acid mist
96. Smoke mixed with dust is called as
- Smust
 - Smog
 - Smost
 - Fog
97. Type of pneumoconiosis caused due to inhalation of cotton dust for a long duration.
- Byssinosis
 - Bagasossis
 - Anthacosis
 - Siderosis
98. A natural outlet of ground water is
- Spring
 - Deep well
 - Water falls
 - Fountain
99. A biological waste treatment process where biological growth comes in contact with waste water in the presence of oxygen.
- Activated sludge
 - Clariflocculator
 - Sanitary land fill
 - Composting
- 100 A biological decomposition process that converts organic matter to stable humas like product is
- Activated sludge
 - Clariflocculator
 - Sanitary land fill
 - Composting

Key

1. B	2. A	3. C	4. A	5. B	6. D	7. C	8. B	9. D	10. B
11. C	12. B	13. A	14. A	15. D	16. C	17. D	18. D	19. C	20. C
21. B	22. C	23. A	24. A	25. A	26. D	27. B	28. A	29. A	30. B
31. A	32. D	33. C	34. B	35. A	36. B	37. A	38. B	39. B	40. A
41. C	42. A	43. A	44. A	45. A	46. C	47. A	48. A	49. A	50. A
51. D	52. C	53. B	54. C	55. A	56. A	57. D	58. A	59. B	60. D
61. C	62. A	63. A	64. B	65. A	66. A	67. A	68. C	69. B	70. B
71. B	72. D	73. D	74. A	75. A	76. B	77. C	78. A	79. A	80. B
81. A	82. B	83. B	84. A	85. D	86. C	87. A	88. A	89. A	90. B
91. A	92. A	93. A	94. A	95. B	96. A	97. A	98. A	99. A	100. D

**ICAR-JRF Model Questions in the Subject of Veterinary
Pathology**

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1. Neurotropic velogenic form of NewCastle Disease
 - a. Beaudette's form
 - b. Hitchner's form
 - c. Beach's form
 - d. Doyle's form

2. Main site of Infectious Laryngotracheitis virus latency is
 - a. Gasserian ganglion
 - b. Trigeminal ganglion
 - c. Laryngeal ganglion
 - d. Optical ganglion

3. Hemorrhagic band between proventriculus and gizzard is seen in
 - a. IBD
 - b. IB
 - c. IBH
 - d. ILT

4. Cell free virus in Marek's Disease is noticed in
 - a. Liver
 - b. Spleen
 - c. Feather follicle
 - d. Caecal tonsil

5. Primary target cells in Marek's Disease are
 - a. B lymphocytes
 - b. T lymphocytes
 - c. NK cells
 - d. Erythrocytes

6. Special stain used for detection of neoplastic cells in Marek's Disease
 - a. Giemsa stain
 - b. Papanicolau stain
 - c. Congo red stain
 - d. Methyl Green Pyronin stain

7. Big liver disease is a synonym for

- a. Lymphoid Leucosis
 - b. Erythroid leucosis
 - c. Myeloid leucosis
 - d. Marek's disease
8. Morocco leather appearance of liver in poultry is seen in
- a. Lymphoid Leucosis
 - b. Erythroid leucosis
 - c. Myeloid leucosis
 - d. Marek's disease
9. Most common source of Avian Influenza virus
- a. Chickens
 - b. Ducks
 - c. Turkeys
 - d. Pigeon
10. Natural reservoirs for Avian Influenza virus are
- a. Chickens
 - b. Turkeys
 - c. Wild birds
 - d. Pigs
11. Sudden fall in egg production around peak period is seen in
- a. IB
 - b. IBD
 - c. Leechi Disease
 - d. EDS-76
12. Bollinger bodies are the intracytoplasmic inclusion bodies of
- a. Avian pox virus
 - b. Avian paramyxovirus
 - c. Avian corona virus
 - d. Avian nephritis virus
13. The stage of pock lesion absent in Avian Pox is
- a. Papular
 - b. Pustular
 - c. Vesicular
 - d. Scab
14. DNA virus in poultry capable of replicating in the cell cytoplasm
- a. IBH Virus
 - b. ILT Virus
 - c. Fowl Pox Virus
 - d. IB Virus
15. Thin and watery bone marrow is seen in
- a. RD
 - b. MD
 - c. IB
 - d. IBH

16. In Leechi Disease prominent finding is
- Right ventricular dilatation
 - Right auricular dilatation
 - Left ventricular dilatation
 - Left auricular dilatation
17. Helicopter disease is caused by
- Reo virus
 - Retro virus
 - Corona virus
 - Entero virus
18. Chicken infectious anemia disease is also being named as
- Pearl disease
 - Epidemic tremor
 - Blue wing disease
 - Angara disease
19. Systemic form of colibacillosis in poultry are
- Omphalitis
 - Egg peritonitis
 - Both
 - None
20. Mushy chick disease is caused by
- Salmonella pullorum
 - Salmonella gallinarum
 - Escherichia coli
 - Hemophilus paragallinarum
21. Nonmotile salmonella organism causing Bacillary white diarrhea
- Salmonella enteritidis
 - Salmonella pullorum
 - Salmonella gallinarum
 - Salmonella typhimurium
22. Greenish bronze color discoloration of liver is seen in
- Fowl Paratyphoid
 - Fowl Typhoid
 - Fowl Cholera
 - Fowl Spirochaetosis
23. The type of paralysis seen in Botulism in poultry
- Flaccid
 - Spastic
 - Both
 - None
24. Hemophilus paragallinarum organism exhibits satellitosis phenomenon in agar with
- Streptococcal organism

- b. Staphylococcus organism
 - c. Salmonella organism
 - d. Mycoplasma
25. Tick borne disease in poultry leading to splenomegaly
- a. Fowl plague
 - b. Fowl cholera
 - c. Fowl pox
 - d. Fowl spirochaetosis
26. Caecal coccidiosis is caused by
- a. Eimeria tenella
 - b. Eimeria brunette
 - c. Eimeria acervulina
 - d. Eimeria stidae
27. Black head disease is caused by
- a. Borrelia anserine
 - b. Pasteurella multocida
 - c. Histomonas meleagridis
 - d. Salmonella gallinarum
28. Fatty Liver Kidney Disease is seen mainly seen due to dietetic deficiency of
- a. Methionine
 - b. Choline
 - c. Nicotinic acid
 - d. Biotine
29. Turkey towel appearance of crop in poultry is seen in
- a. Candidiasis
 - b. Aspergillosis
 - c. Favus
 - d. Angara disease
30. Target organ for Ochratoxins in poultry
- a. Liver
 - b. Kidney
 - c. Heart
 - d. Lung
31. Sulphur yellow colored faeces in poultry is observed in
- a. Histomoniasis
 - b. Fowl Typhoid
 - c. Fowl Cholera
 - d. Coccidiosis
32. Bumble foot in poultry birds is caused by
- a. Streptococcus organisms
 - b. Pasteurella organisms
 - c. Hemophilus organisms
 - d. Staphylococcal organisms

33. Intranuclear eosinophilic inclusion bodies in hepatic cells in poultry is seen in
- MD
 - LL
 - IB
 - IBH
34. Muscular hemorrhages in Gumboro Disease is due to
- Formation of Immune complexes
 - Impaired clotting mechanism
 - Both
 - None
35. Mixing vessel for avian and mammalian Influenza viruses
- Cattle
 - Dog
 - Human
 - Pig
36. Mycotoxin which can typically induce ulcerative stomatitis is
- Aflatoxin
 - Citrinin
 - Trichothescene
 - Ochratoxin
37. Nutritional Roup in poultry is due to deficiency of
- Vitamin A
 - Vatamin D
 - Vitamin E
 - Vitamin K
38. Star gazing in poultry is due to deficiency of
- Riboflavin
 - Zinc
 - Thiamine
 - Nicotinic acid
39. Slipped tendon in poultry is due to deficiency of
- Manganese
 - Magnesium
 - Choline
 - Calcium
40. Chronic fungal disease caused by *Trichophyton gallinae*
- Favus
 - Aspergillosis
 - Candidiasis
 - Mycotoxicosis

41. Nephropathogenic avian virus is
- ILT virus
 - RD virus
 - IB virus
 - MD virus
42. The type of Avian Influenza which does not cause Avian Influenza
- Type A
 - Type B
 - Type C
 - Type A & B
43. Knemidocoptes mutans in poultry induces
- Scaly lesions on the legs
 - Scabby lesions around the vent
 - Crusty lesions under the wings
 - Gangrenous dermatitis
44. Important cause for Fatty Liver Hemorrhagic Syndrome is
- Mycotoxins
 - Amino acid imbalance
 - Vitamin E deficiency
 - Thiamine deficiency
45. Lymphoproliferative viral disease in poultry is
- RD
 - IBD
 - IB
 - MD
46. Vector borne disease of poultry
- Fowl cholera
 - Fowl spirochaetosis
 - Both
 - None
47. In avian inflammatory process Giant cells are seen in
- Acute inflammation
 - Chronic inflammation
 - Both
 - None
48. Gout in poultry is due to
- Excess protein intake
 - Deficiency of Vitamin A
 - Lack of uricase enzyme
 - All
49. Lymphoblasts are prominently seen in the following nerve lesion of MD
- Type A

- b. Type B
 - c. Type C
 - d. None
50. Bloody thigh syndrome is due to
- a. Aflatoxins
 - b. Ochratoxins
 - c. Tricothescene
 - d. Flavitoxins
51. Best example for intoxication is
- a. Tetanus
 - b. Struck
 - c. Botulism
 - d. All
52. One should not conduct PM examination of animals suspected to be died of
- a. Splenic fever
 - b. Pasteurellosis
 - c. Tuberculosis
 - d. Black leg
53. In equines abscessation of submaxillary lymph node is observed in
- a. Glanders
 - b. Equine plague
 - c. Equine influenza
 - d. Strangles
54. Capsule of Anthrax bacilli contain
- a. Protogon
 - b. Glutamyl polypeptide
 - c. Protective antigen
 - d. Card factor
55. Shipping fever is caused by
- a. Brucella
 - b. Leptospira
 - c. Pasteurella
 - d. Clostridium
56. Panting is a secondary effect of
- a. RP
 - b. Brucellosis
 - c. FMD
 - d. Anthrax
57. Circling movement in sheep is observed in
- a. Anthrax
 - b. Listeriosis
 - c. Tetanus
 - d. Leptospirosis

58. Both Intracytoplasmic and intranuclear inclusion bodies are noticed in
- ICH
 - Rabies
 - CD
 - Pseudorabies
59. Neurological sign in tetanus is produced by
- Tetanospasmin
 - Tetanolysin
 - Both
 - None
60. A positive Strau's test is given by
- Brucella org
 - Glanders org
 - Pseudomonas org
 - All
61. Paint brush hemorrhages on gastric mucosa in dogs is seen in
- Listeriosis
 - Leptospirosis
 - CD
 - ICH
62. Necrotizing Myocarditis/Tigroid appearance of heart in calves is seen in
- FMD
 - Rabies
 - Coccidiosis
 - BQ
63. Infarcts in the mucosa of gall bladder in pigs is seen in
- Hog Cholera
 - Swine Flu
 - Swine Erysipelas
 - Pseudorabies
64. Distinct hemorrhage at the base of pulmonary artery in sheep is seen in
- Blue Tongue
 - Enterotoxaemia
 - Anthrax
 - Maedi
65. Necrotizing myositis in cattle is seen in
- FMD
 - Rabies
 - Coccidiosis
 - BQ
66. Soft and pulpy kidneys in sheep is seen in
- Blue Tongue

- b. Enterotoxaemia
 - c. Anthrax
 - d. Maedi
67. Purulent necrotic laryngitis in dogs is seen in
- a. ICH
 - b. Leptospirosis
 - c. CD
 - d. Pseudorabies
68. Diphasic fever and thickening of foot pad in dogs is seen in
- a. ICH
 - b. Rabies
 - c. CD
 - d. Pseudorabies
69. Distinct lesions in gasserian ganglion/Babes nodules in dogs is seen in
- a. Rabies
 - b. Leptospirosis
 - c. CD
 - d. Pseudorabies
70. Malignant carbuncles in human beings is seen in
- a. Rabies
 - b. Leptospirosis
 - c. Anthrax
 - d. Scabies
71. Characteristic anemic infarcts in liver of cattle is seen in
- a. Bacillary Hemoglobinuria
 - b. Rabies
 - c. Rinderpest
 - d. BQ
72. Micro abscesses in brain of sheep is seen in
- a. Blue Tongue
 - b. Listeriosis
 - c. Leptospirosis
 - d. Maedi
73. Zebra marking in large intestine of cattle is seen in
- a. PPR
 - b. Rabies
 - c. Rinderpest
 - d. BQ
74. Vesicles on buccal mucosa and on cleft of foot in cloven footed animals is seen in
- a. FMD
 - b. Vesicular Exanthema
 - c. RP
 - d. BQ

75. Wooden tongue in cattle is seen in
- FMD
 - Vesicular Exanthema
 - Actinomycosis
 - Actinobacillosis
76. Turkey egg appearance of kidneys in pigs is seen in\
- Hog Cholera
 - Swine Flu
 - Pseudorabies
 - Swine Influenza
77. Diamond shaped skin lesions in pigs is seen in
- Hog Cholera
 - Swine Flu
 - Swine Erysipelas
 - Swine Influenza
78. Rarefying osteomyelitis of mandible/lumpy jaw in cattle is seen in
- FMD
 - Vesicular Exanthema
 - Actinomycosis
 - Actinobacillosis
79. Bran sprinkled lesions on the epithelium in cow is seen in.
- FMD
 - Vesicular Exanthema
 - RP
 - Actinobacillosis
80. Intense pruritis in pigs is a characteristic feature of
- Hog Cholera
 - Swine Flu
 - Pseudorabies
 - Swine Influenza
81. Rigor mortis is absent or never complete in
- FMD
 - Anthrax
 - RP
 - Tuberculosis
82. Mc Fadyean's reaction to the Anthrax organism is seen when stained with
- Giemsa stain
 - Leishman Stain
 - Congo red
 - Methylene Blue
83. Saw horse posture is seen in
- Botulism

- b. Tetanus
 - c. Leptospirosis
 - d. Tuberculosis
84. The type of pleurisy seen in cattle affected with Tuberculosis
- a. Dry
 - b. Wet
 - c. Both
 - d. None
85. Acid fastness of mycobacterial agents is due to
- a. Ascorbic acid
 - b. Folic acid
 - c. Mycolic acid
 - d. None
86. Paralysis of third eyelid is seen in
- a. Glanders
 - b. Equine Plague
 - c. Blind stagger
 - d. Tetanus
87. Shipping fever is caused by
- a. *B. melitensis*
 - b. *L. Pomona*
 - c. *P. multocida*
 - d. *Cl. septicum*
88. Strangles is an acute disease of
- a. Horses
 - b. Sheep
 - c. Goat
 - d. None of the above
89. "Sulfur granules" are noticed in
- a. Tuberculosis
 - b. Actinobacillosis
 - c. Listeriosis
 - d. All of the above
90. Panting is a secondary effect of
- a. Rinderpest
 - b. Brucellosis
 - c. F.M.D.
 - d. Anthrax
91. Intra-nuclear basophilic inclusions in hepatocytes are found in
- a. I.C.H.
 - b. C.D.
 - c. Rabies
 - d. Both a & b

92. Haemolytic Jaundice is noticed in
- Babesiasis
 - Leptospirosis
 - Both a & b
 - None of the above
93. Navel ill is caused by
- E.coli
 - B.coli
 - B.abortus
 - All of the above
94. Circling movements are observed in
- Anthrax
 - Tetanus
 - Botulism
 - None of the above
95. A synonym for Aujeszky's Disease is
- Bang's disease
 - Rubarth's Disease
 - Pseudorabies
 - Hard Pad Disease
96. Rectal pinch method is one of the important method of diagnostic tool adopted for
- Rinderpest
 - Brucellosis
 - F.M.D.
 - Anthrax
97. Reservoir hosts in Leptospirosis and Listeriosis are
- Dogs
 - Rats
 - Rabbit
 - Human Beings
98. Gold standard for the diagnosis of Leptospirosis is
- Precipitation test
 - FAT
 - Agglutination Test
 - D-RIT
99. Scirrhus cord is caused by
- Staphylococcus
 - Streptococcus
 - E.coli
 - Mycoplasma
100. Greasy pig disease is caused by
- E. coli

- b. Salmonella suis
 - c. Brucella abortus
 - d. Staphylococcus hyos
101. Diagnostic test carried out for the diagnosis of Glanders
- a. Mallein Test
 - b. Strau's Test
 - c. Both
 - d. None
102. Twitching of nose, backward walking & continuous squealing in pigs is seen in
- a. Rabies
 - b. Pseudorabies
 - c. Swine Fever
 - d. Swine Erysipelas
103. Negri bodies in Rabies are the inclusion bodies noticed in
- a. Intracytoplasmic
 - b. Intranuclear
 - c. Both
 - d. None
104. Characteristic Intracytoplasmic & Intranuclear inclusion bodies are seen in
- a. I.C.H.
 - b. C.D.
 - c. Rabies
 - d. Parvoviral infection
105. Transmission of Blue Tongue is through bite of
- a. Dogs
 - b. Ticks
 - c. Culicoides
 - d. Mites
106. Wheelbarrow test is carried out for the diagnosis of
- a. PPR
 - b. Maedi
 - c. Jaagsiekte
 - d. Brucellosis
107. Coggin's Test is an important test carried out for the diagnosis of
- a. African Horse Sickness
 - b. Glanders
 - c. Equine Infectious Anemia
 - d. Strangles
108. Acute pulmonary form in African Horse Sickness
- a. DIKKOP
 - b. DUNKOP
 - c. Both
 - d. None

109. Neonatal calf diarrhoea (Scour) is caused by
- Corona virus
 - Rota virus
 - Entero virus
 - Parvo virus
110. Eyelid test in sheep is carried out for the diagnosis of
- Scrapie
 - Enterotoxaemia
 - Blue Tongue
 - Sheep Pox
111. Marbled appearance of lungs is an important finding in
- Tuberculosis
 - RP
 - FMD
 - CBPP
112. Machiavello stain is the special stain used for the demonstration of
- Rickettsiae
 - Chlamydia
 - Both
 - None
113. Malignant form of pox is seen in
- Goat
 - Sheep
 - Cattle
 - Swine
114. Lumpyskin Disease caused by Capripox virus is seen in
- Goat
 - Sheep
 - Cattle
 - Swine
115. Saddle shaped fever is seen in
- I.C.H.
 - C.D.
 - Rabies
 - Parvoviral infection
116. Nutmeg appearance of liver is seen in
- Acute general active hyperemia
 - Acute local active hyperemia
 - Acute general passive hyperemia
 - Chronic general passive hyperemia
117. Accumulation of blood in ventral parts of body due to gravity is
- Hypostatic congestion

- b. Hyperstatic congestion
 - c. Local congestion
 - d. General congestion
118. Blood in sputum is called
- a. Melena
 - b. Epistaxis
 - c. Hemoptysis
 - d. Apoplexy
119. Generalized subcutaneous edema is also known as
- a. Ascitis
 - b. Anasarca
 - c. Hydrocoele
 - d. Edemosis
120. Emboli is more common in
- a. Veins
 - b. Arteries
 - c. Lymphatic vessel
 - d. Heart
121. Caisson disease is an example for
- a. Air embolism
 - b. Solid embolism
 - c. Liquid embolism
 - d. None
122. Sudden blockage of an end artery in Infarction leads to
- a. Caseative necrosis
 - b. Coagulative necrosis
 - c. Liquefactive necrosis
 - d. Fat necrosis
123. Multiple infarcts are more commonly seen in
- a. Lungs
 - b. Liver
 - c. Spleen
 - d. Heart
124. In acute inflammation extravasation of leukocytes is
- a. Active process
 - b. Passive process
 - c. Both
 - d. None
125. Goblet cell proliferation is commonly seen in
- a. Serous inflammation
 - b. Fibrinous inflammation
 - c. Catarrhal inflammation
 - d. Allergic inflammation

126. Inflammation of caecum is called
- Ingluvitis
 - Proctitis
 - Typhlitis
 - Enteritis
127. Mast cells are involved in
- Type I Hypersensitivity
 - Type II Hypersensitivity
 - Type III Hypersensitivity
 - Type IV Hypersensitivity
128. Eosinophilia is seen in
- Allergic inflammation
 - Serous inflammation
 - Fibrinous inflammation
 - Catarrhal inflammation
129. Perivascular cuffing is mainly formed by
- Neutrophils
 - Lymphocytes
 - Eosinophils
 - Basophils
130. Chemical mediator of inflammation involved in vasoconstriction
- Histamine
 - Prostaglandin
 - Nitric oxide
 - Leukotriene
131. Mass of proliferating connective tissue under scar is
- Proud flesh
 - Keloid
 - Hyaline
 - Hyalos
132. Cooling of the body after death is called
- Livor mortis
 - Algor mortis
 - Rigor mortis
 - Coolar mortis
133. Automobile accidents lead to
- Air emboli
 - Fat emboli
 - Liquid emboli
 - None
134. Most common type of necrosis
- Caseative necrosis

- b. Coagulative necrosis
 - c. Liquefactive necrosis
 - d. Fat necrosis
135. Frost bite causes
- a. Wet gangrene
 - b. Dry gangrene
 - c. Both
 - d. None
136. Active hyperemia is accumulation of blood in
- a. Veins
 - b. Lymphatics
 - c. Arteries
 - d. Heart
137. Amyloid occurs in the body as a result of
- a. Antigen
 - b. Antibody
 - c. Immunocomplex formation
 - d. Starch
138. Examination of tissues received from living animals
- a. Autopsy
 - b. Biopsy
 - c. Necropsy
 - d. Lithopsy
139. Fibrosis may lead to
- a. Atrophy
 - b. Hyperplasia
 - c. Dysplasia
 - d. Hypertrophy
140. Transformation of one type of cells to another cell type is known as
- a. Hyperplasia
 - b. Dysplasia
 - c. Anaplasia
 - d. Metaplasia
141. Failure of an organ to develop its full size is
- a. Aplasia
 - b. Hypoplasia
 - c. Agenesis
 - d. Atrophy
142. Hyperchromasia in cells with their enlargement is seen in
- a. Dysplasia
 - b. Hyperplasia
 - c. Metaplasia
 - d. Hypertrophy

143. Father of cellular pathology
- Antonio B
 - John Hunter
 - Rudolph Virchow
 - Julius Cohneium
144. Blisters on the skin is an example for
- Hydropic degeneration
 - Hyaline degeneration
 - Glycogen infiltration
 - Amyloid infiltration
145. Special stain used for demonstration of Amyloid
- Best's Carmine
 - Congo red
 - De Galantha's
 - Sudan -III
146. Lipidoses is commonly seen in
- Liver
 - Kidney
 - Pancreas
 - Neuron
147. Scar tissue is an example for
- Connective tissue Hyaline
 - Epithelial Hyaline
 - Muscular Hyaline
 - All
148. Diffuse infiltration of Ayloid material in spleen is known as
- Sago spleen
 - Bacon spleen
 - Both
 - None
149. Cellular details are lost but architectural details persists in
- Liquefactive necrosis
 - Coagulative necrosis
 - Fat necrosis
 - Caseative necrosis
150. Coagulative necrosis is predominant in
- Dry gangrene
 - Wet gangrene
 - Both
 - None
151. Complete absence of melanin pigment in an individual is
- Vitiligo
 - Leukoderma

- c. Albinism
- d. Melanosis

152. The pigment which is an important marker of Free Radical cell injury is
- a. Porphyrin
 - b. Melanin
 - c. Hemosiderin
 - d. Lipofuscin
153. Hemosiderin laden macrophages are the heart failure cells present in
- a. Liver
 - b. Heart
 - c. Lung
 - d. Brain
154. Deposition of carbon or coal particles in the lungs is known as
- a. Plumbism
 - b. Anthracosis
 - c. Argyrosis
 - d. Silicosis
155. Dystrophic calcification occurs in
- a. Normal tissue
 - b. Necrotic tissue
 - c. Both
 - d. None
156. Von Kossa is a special stain used for demonstrating
- a. Amyloid
 - b. Fat
 - c. Calcium
 - d. Mucin
157. Acute heart failure is not caused by
- a. Anoxia
 - b. Shock
 - c. Cardiac tamponade
 - d. Fever
158. Bread and butter appearance of heart is due to deposition of
- a. Fibrin
 - b. Neutrophils
 - c. Fibroblasts
 - d. Collagen
159. Vegetative growth in heart is caused by
- a. Actinomyces pyogenes
 - b. Staphylococci
 - c. Clostridia
 - d. Erysipelas

160. Phlebitis is the inflammation of
- Arteries
 - Veins
 - Capillary
 - Lymph vessel
161. Rheumatoid arthritis is caused by
- Antigen-antibody complex
 - Reovirus
 - Brucella spp
 - E.coli
162. Atelectasis neonatorum is characteristic feature of
- Premature birth
 - Aborted foetus
 - Still birth
 - None
163. Nasal polyps are caused by
- Schistosoma nasalis
 - Rhinosporidium seeberi
 - E.coli
 - Mycoplasma mycoides
164. Telescoping of intestine is known as
- Torsion
 - Volvulus
 - Intususception
 - None
165. Button shaped ulcers in the abomasums is seen in
- Salmonella spp
 - Staphylococci
 - Escherichia coli
 - FMD
166. The variation in the shape of erythrocytes is called
- Poikilocytosis
 - Anisocytosis
 - Polychromatophilia
 - Heinz bodies
167. Decrease in number of all components of leucocytes is known as
- Leucopenia
 - Panleucopenia
 - Leucocytosis
 - Leukemia
168. Bracken fern causes
- Hematuria

- b. Pyuria
 - c. Hemoglobinuria
 - d. Anuria
169. Uremia is caused by increased amount level of in blood
- a. Urea
 - b. Uric acid
 - c. Creatinine
 - d. All
170. In congenital Ichthyosis the skin of calves resembles the skin of
- a. Toad
 - b. Fish
 - c. Tortoise
 - d. Zebra
171. Hyperkeratosis is the thickening of
- a. Prickle cell layer
 - b. Stratum lucidum
 - c. Stratum corneum
 - d. Dermis
172. Retention of nucleus in keratin layer of skin is known as
- a. Hyperkeratosis
 - b. Parakeratosis
 - c. Urticaria
 - d. Acanthosis
173. Hydrocele is accumulation of serous fluid in
- a. Oviduct
 - b. Testes
 - c. Mammary gland
 - d. Tunic vaginalis
174. Summer mastitis is caused by
- a. Staphylococci
 - b. Actinomyces pyogenes
 - c. Streptococci
 - d. Candida albicans
175. Funiculitis is the inflammation of
- a. Scirrhus card
 - b. Seminal vesicle
 - c. Glans penis
 - d. Prepuce
176. Metastatic calcification occurs in
- a. Hyperthyroidism
 - b. Hyperparathyroidism
 - c. Hypothyroidism
 - d. Hypoparathyroidism

177. Cleft in iris is known as
- Iritis
 - Microphakia
 - Aphakia
 - Coloboma
178. Equine goiter is caused by
- Iodine deficiency
 - Iodine excess
 - Cabbage
 - Radiation
179. Acromegaly is caused by
- Hyperpituitarism
 - Hypopituitarism
 - Hypothyroidism
 - Hyperthyroidism
180. Increase in the number of white blood cells in CSF is termed as
- Satellitosis
 - Encephalitis
 - Pleocytosis
 - Leucoencephalomalacia
181. Phagocytic cells of brain are
- Astrocytes
 - Microglial
 - Oligodendrial
 - All
182. Hernia of meninges through cranioschisis is known as
- Hydrocele
 - Meningocele
 - Meningoencephalocele
 - None
183. The type of anemia observed in Hematuria
- Hemolytic
 - Autoimmune
 - Hemorrhagic
 - Dystrophic
184. Frothy bloat in buffaloes occurs due to
- Saponin
 - Fatty acids
 - Carbohydrate
 - None
185. Pica may lead to formation of
- Piloconcretions

- b. Polybezors
 - c. Both
 - d. None
186. The nuclear – cytoplasmic ratio in a cancer cell is
- a. 1:4
 - b. 1:5
 - c. 1:6
 - d. 1:1
187. The following chemicals are directly acting carcinogen
- a. Nitrosoureas
 - b. Benzanthracene
 - c. Aflatoxin
 - d. Asbestos
188. The bacteria used in the Ames test / Mutagenicity test are
- a. Salmonella typhimurium
 - b. Salmonella typhi
 - c. Coxiella burnetti
 - d. Mycobacterium tuberculosis
189. ERBB1 / EGF receptor is overexpressed in 80% cases of
- a. Canine mastadenoma
 - b. Pheochromacytoma
 - c. Osteochondrosarcoma
 - d. Squamous cell carcinoma
190. Toluidine blue is used for demonstration of
- a. Mixed mammary tumor
 - b. Osteosarcoma
 - c. TVT
 - d. Mastosarcoma
191. Finger print appearance in histopathology is seen in
- a. Hemangiosarcoma
 - b. Squamous cell caecinoma of skin
 - c. Hemangiopericytoma
 - d. Hepatoma
192. Bence jones proteinuria is seen in
- a. Hodgkins lymphoma
 - b. Non Hodgkins Lymphoma
 - c. Multiple myeloma
 - d. Mesothelioma
193. Special stain used for differentiating fibroblasts or Muscle cells are
- a. Cresyl violet
 - b. H&E
 - c. Van-giesons stain
 - d. Von kossa's silver nitrate

194. Canine Zollinger –Ellison Syndrome is due to tumors arising from
- Beta cells
 - Non –beta cells
 - Kupffer cells
 - C – cell
195. Failure of neutrophil to segment into lobes
- SCID
 - NOD
 - Sjogren’s
 - Pelger-huet anomaly
196. Test used to detect globulins in CSF
- Robert’s test
 - Heller’s test
 - Pandey’s test
 - Nonne Apelt test
197. Mulberry cell appearance of eosinophil is seen in
- Cattle
 - Dogs
 - Cats
 - Horses
198. Stain used for demonstration of Reticulocytes
- Giemsa stain
 - Crystal violet
 - Brilliant cresyl blue
 - Giemsa-Leishman stain
199. Increased buffy coat in microhematocrit capillary tube is suggestive of
- Bacterial infections
 - Hematopoietic malignancy
 - Both
 - None
200. Increase in basophil number is seen in
- Dirofilariasis
 - Chronic respiratory disease
 - Hypothyroidism
 - All of the above

KEY

Q.No	Ans	Q.No	Ans	Q.No	Ans	Q.No	Ans	Q.No	Ans
1	C	41	c	81	b	121	a	161	a
2	B	42	c	82	d	122	b	162	c
3	A	43	a	83	b	123	c	163	b
4	C	44	c	84	a	124	a	164	c
5	A	45	d	85	c	125	c	165	a
6	D	46	c	86	d	126	c	166	a
7	A	47	c	87	c	127	a	167	b
8	C	48	d	88	a	128	a	168	a
9	B	49	a	89	b	129	b	169	b
10	C	50	a	90	c	130	d	170	b
11	D	51	c	91	a	131	a	171	a
12	A	52	a	92	a	132	b	172	b
13	C	53	a	93	a	133	b	173	d
14	C	54	b	94	c	134	b	174	b
15	D	55	c	95	b	135	b	175	a
16	A	56	c	96	c	136	c	176	b
17	A	57	b	97	b	137	c	177	d
18	C	58	c	98	c	138	b	178	b
19	D	59	a	99	b	139	a	179	a
20	C	60	b	100	d	140	d	180	c
21	B	61	d	101	c	141	a	181	d
22	B	62	a	102	b	142	d	182	b
23	A	63	a	103	a	143	c	183	c
24	B	64	a	104	b	144	a	184	a
25	D	65	d	105	c	145	b	185	c

26	A	66	b	106	c	146	d	186	d
27	C	67	b	107	c	147	a	187	a
28	D	68	c	108	b	148	b	188	a
29	C	69	a	109	b	149	b	189	d
30	B	70	c	110	a	150	a	190	d
31	A	71	a	111	d	151	c	191	c
32	D	72	b	112	c	152	d	192	c
33	D	73	c	113	a	153	c	193	c
34	C	74	a	114	c	154	b	194	b
35	D	75	d	115	a	155	b	195	d
36	C	76	a	116	d	156	c	196	c
37	A	77	c	117	a	157	d	197	d
38	C	78	c	118	c	158	a	198	c
39	C	79	c	119	b	159	d	199	c
40	A	80	c	120	b	160	b	200	d

Department of Veterinary Preventive Medicine

Dr. Suresh Patel. Assistant professor

1. Oxytetracycline is contraindicated in
 - a. Young animals
 - b. Pregnant animals
 - c. Old animals
 - d. a and b
2. Pseudo cow pox lesions are characterized by
 - a. Pus
 - b. Horse shoe shaped ring scab
 - c. Blood oozing
 - d. None of the above
3. Swine pox is
 - a. Malignant disease
 - b. Benign disease
 - c. Mixed disease
 - d. None of the above
4. The viral disease of horses restricted to North and South Americas only
 - a. EIA
 - b. Equine influenza
 - c. Equine encephalomyelitis
 - d. AHS
5. The following pups are highly susceptible to canine distemper
 - a. Inadequate immunity
 - b. Adequate immunity
 - c. Vaccinated pups
 - d. Sick pups
6. Death of rabid dog is due to
 - a. Cardiac failure
 - b. Respiratory failure
 - c. Nervous system failure
 - d. All of the above
7. The following species are resistant to FMD
 - a. Pigs
 - b. Goats
 - c. Sheep
 - d. Horses
8. The drug of choice in the treatment of wooden tongue is

- a. Alincomycin
 - b. Gentamicin
 - c. Potassium iodide
 - d. Tetracycline
9. Vaginal mucus agglutination is useful to diagnose
- a. Brucellosis
 - b. Anthrax
 - c. Erysipelosis
 - d. Leptospirosis
10. The following species is resistant to botulism
- a. Cattle
 - b. Horse
 - c. Sheep
 - d. Pigs
11. Presence of suspicious foreign material in the forestomach in post mortem in cattle is suggestive of
- a. Botulism
 - b. Anthrax
 - c. Black leg
 - d. None of the above
12. Trismus with restricted jaw movement, saw horse posture are characteristic symptoms of
- a. Actinobacillosis
 - b. Listeriosis
 - c. Enterotoxaemia
 - d. Tetanus
13. The vaccine inoculated in poultry birds on the day of hatching is
- a. Avian leucosis complex
 - b. Ranikhet disease
 - c. Marek's disease
 - d. IBD
14. Development of pustular and scabby lesions on the muzzle and lips of sheep and goats are characteristic symptoms of
- a. PPR
 - b. RP
 - c. Orf
 - d. Bluetongue
15. Transmission of encephalitic form of listeriosis occurs by
- a. Ingestion of contaminated milk
 - b. Infection of tooth cavity
 - c. Infection through naval
 - d. None of the above
16. Predilection site for *Brucella abortus*
- a. Pregnant uterus
 - b. Udder
 - c. Testicles

- d. All of the above
-
- 17. Bovine viral diarrhoea virus is antigenically related to
 - a. Hog cholera & Border disease
 - b. PPR & Measles
 - c. CD & Measels
 - d. None of the above
 - 18. Death in puppies suffering for canine parvo virus infection are mainly due to
 - a. Severe dehydration
 - b. Excessive blood loss
 - c. Myocarditis
 - d. None of the above
 - 19. Tiger heart condition is observed in
 - a. TB
 - b. JD
 - c. FMD
 - d. None of the above
 - 20. The type of New castle disease virus is most virulent
 - a. Velogenic
 - b. Mesogenic
 - c. Lentogenic
 - d. None of the above
 - 21. Shipping fever in cattle is caused by
 - a. Pasteurella haemolytica
 - b. Pasteurella multocida
 - c. Mycoplasma mycoides
 - d. Chlymydia psittaci
 - 22. Necrotizing myositis is the main pathogenesis found in following disease
 - a. Brucellosis
 - b. FMD
 - c. BQ
 - d. Tetanus
 - 23. The allergic test conducted on horse for the diagnosis of glanders is called
 - a. Strauss reaction
 - b. Mallein test
 - c. Johnin test
 - d. Coggin's test
 - 24. Fowl typhoid in poultry is caused by
 - a. Pasteurella multocida
 - b. Salmonella typhimurium
 - c. Salmonella gallinarium
 - d. Salmonella pullorum

25. Gold standard serological test used for diagnosis of leptospirosis is
- RPAT
 - MAT
 - AGPT
 - HAT
26. The chewing gum type of seizures is classical nervous sign shown in dogs affected with
- ICH
 - Canine parvoviral gastroenteritis
 - Rabies
 - CD
27. Abortion is one of the predominant clinical sign in following equine disease
- EIA
 - Equine influenza
 - Equine viral rhinopneumonitis
 - AHS
28. The following disease cause immune suppression in affected chickens
- Avian encephalomyelitis
 - IBD
 - ILT
 - Avian influenza
29. The most commonly conducted serological test for detection of antibodies in chickens vaccinated against ND is
- HAT
 - HIT
 - CFT
 - Indirect FAT
30. PPR disease is more severe and cause high mortality in
- Cattle
 - Buffales
 - Goats
 - Sheep
31. Rabies inclusion bodies
- Bollinger bodies
 - LCL bodies
 - Negribodies
 - Koch blue bodies
32. Biological vector of bluetongue virus
- Mosquitoes
 - Ticks
 - Fles
 - Culicoides

33. Epitheliotropic virus is
- Rabies
 - FMD
 - Pox
 - Smedi virus
34. Single intradermal test is performed to diagnose
- IBR
 - BVD
 - RP
 - JD
35. Tarry coloured blood
- Canine parvoviral infection
 - Anthrax
 - Clostridial infection
 - RP
36. Hog cholera is disease of the following animal
- Dog
 - Bovine
 - Swine
 - Sheep & goat
37. Raised button ulcers in colonic mucosa of swine is the pathogenic lesion in
- Theileriosis
 - Hog cholera
 - Swine fever
 - All of the above
38. Abortion causing zoonotic diseases
- Brucellosis
 - Leptospirosis
 - a & b
 - None of the above
39. Suitable age for primary vaccination against rabies is
- 3 weeks
 - 3 months
 - 4 months
 - 5 months
40. Pruritus is symptom of following disease
- Scrapie
 - Pseudorabies
 - Mange
 - All of the above
41. The proportion of diseased animals that die

- a. Mortality
 - b. Incidence
 - c. Case fatality
 - d. Morbidity
42. The study of disease in a small group of individuals with respect to factors that influence its occurrence in larger segment of population
- a. Micro epidemiology
 - b. Environmental epidemiology
 - c. Survey epidemiology
 - d. Comparative epidemiology
43. The amount of organism required to initiate infection indicates
- a. Virulence
 - b. Pathogenesis
 - c. Susceptibility
 - d. Infectivity
44. The period between infection and maximum infectiousness is
- a. Generation time
 - b. Prepatent period
 - c. Threshold level
 - d. Eclipse
45. Dogs that are affected with rabies are examples of
- a. Convalescent carriers
 - b. Incubatory carriers
 - c. Latent carriers
 - d. None of the above
46. The disease that occurs with a predictable regularity with minor fluctuations in its frequency, then such occurrence is called
- a. Sporadic
 - b. Endemic
 - c. Pandemic
 - d. Epidemic
47. The distribution of cases of a disease based on times of its occurrences is called
- a. Demography
 - b. Spatial distribution
 - c. Temporal distribution
 - d. Mapping
48. Transmission of an infection by doctor during surgical or medical practice is called
- a. Vertical transmission
 - b. Iatorogenic transmission
 - c. Transtadial transmission
 - d. Aerial transmission
49. Study of animals and plants in relation to habit and habitats is called
- a. Ecology
 - b. Biome
 - c. Epornitics

d. Zoonosis

50. Measures to make regional extinction of an infectious agent is called
- Control
 - Eradication
 - Tertiary prevention
 - Niche filling
51. Following are the causes of failure of the treatment of helminth infection in animals
- Migrating larvae are inaccessible
 - Failure to adequately protect young animals
 - Use of insufficient dose or incorrect anthelmintic
 - All of the above
52. Clinically following symptoms will be observed in a sheep suffering from acute fascioliasis
- Anaemia, weakness, pain on palpation of abdomen, loss of appetite
 - Weight loss, submandibular oedema, anaemia
 - Loss of weight, diarrhea, anaemia
 - All of the above
53. Following snails act as an intermediate host in amphistomiasis in cattle
- Lymnaeid snails
 - Planorbid snails
 - a and b
 - None of the above
54. Following worm of horse is responsible for colic symptoms
- Habronema muscae
 - Tichostrongylus axei
 - Strongylus vulgaris
 - All of the above
55. Tape worm infestation can be treated with the following drug
- Fenbendazole @ 5 mg/kg b.wt.
 - Albendazole @ 5 mg/kg b.wt.
 - Praziquantal @ 5 mg/kg b.wt.
 - All of the above
56. Visceral larva migrans is caused by the migration of larvae of
- Toxocara canis
 - Dictyocaulus viviparus
 - Onchocera gibroni
 - None of the above
57. Toxoplasmosis is a contagious disease of
- Cattle, pigs, sheep and goats
 - Sheep and goats
 - Only cats
 - All the species including human being

58. *Anaplasma marginale* is observed in
- Erythrocytes
 - Leucocytes
 - Muscle cells
 - None of the above
59. Hypoalbuminemia observed in fascioliasis is due to
- Reduced albumin levels due to renal loss
 - Reduced albumin synthesis due to liver damage
 - Deficiency of proteins in diet
 - None of the above
60. Following helminth can be prevented by prophylactic vaccination
- Fasciola hepatica*
 - Paramphistomum*
 - Dictyocaulus viviparus*
 - None of the above
61. Berenil is the drug of choice for
- Babesiosis
 - Anaplasmosis
 - Theileriosis
 - None of the above
62. Pimply gut is caused by
- Oesophagostomum*
 - Bunostomum*
 - Haemonchus*
 - None of the above
63. The cystic intermediate stage of *Echinococcus granulosus* is found in
- Sheep
 - Goat
 - Cattle
 - All of the above
64. The eggs of the *Demodex canis* are
- Round
 - Spindle shaped
 - Oval shaped
 - Variable in shape
65. Tape worms of dogs found in
- Stomach
 - Small intestine
 - Large intestine
 - None of the above
66. Gid in goat is caused by
- Coenurus cerebralis*
 - Cysticercus pisiformis*
 - Coenurus serialis*
 - None of the above

67. Anthelmintic resistance is seen in
- Haemonchus spp
 - Ascaris spp
 - Amphistomes
 - Tape worm
68. Etiology of Verminous bronchitis is
- Dictyocaulus spp
 - Bunostomum spp
 - Trichuris spp
 - Stephanurus spp
69. Intermediate host for fasciola hepatica is
- Planorbid snails
 - Lymnaeid snails
 - a and b
 - None of the above
70. Hydatid cyst is larval stage of
- T.multiceps
 - T.hydatidigena
 - E.granulosus
 - T.saginata
71. 'Clay-pipe stem' fibrosis of liver is a pathognomonic lesion in
- Amphistomiasis
 - Fascioliasis
 - Ascariasis
 - Schistosomiasis
72. The drug of choice in moneiziasis is
- Niclosamide
 - Ivermectin
 - Closantal
 - All of the above
73. Prenatal infection is common in
- Ancylostomiasis
 - Strongylosis
 - Ascariasis
 - a and c
74. Haemonchosis is characterized by
- Hypoproteinaemia
 - Anaemia
 - Oedema of lower jaw
 - All of the above
75. 'Milk spot' liver is a pathognomonic lesion in
- Amphistomiasis
 - Fascioliasis
 - Ascariasis
 - Schistosomiasis

76. Severe pathogenesis in paramphistomiasis is caused by
- Mature flukes
 - Immature (migratory) flukes
 - Ova
 - All of the above
77. Morocco leather appearance of gastric mucosa is observed in
- Stephanofilariosis
 - Ostertagiasis
 - Cooperiasis
 - Trichostrongylosis
78. Gastric granuloma in horses is caused due to
- Habronema majus
 - Drachia megastoma
 - Habronema muscae
 - All of the above
79. Ivermectin is highly effective in treatment of
- Ascariasis in pigs
 - Stephanofilarisis in buffaloes
 - External & internal parasites
 - All of the above
80. Pipe stem faeces is caused by
- Babesia bigemina
 - Babesia cabelli
 - Babesia divergens
 - Babesia bovis
81. Cystic intermediate stage of *Echinococcus granulosus* is found in
- Sheep
 - Goat
 - Cattle
 - All of the above
82. The immature stage of following liver flukes is continuously migrates in the liver parenchyma so severely without causing encapsulation in such a way that only one or two flukes can kill a sheep
- Fasciola gigantica*
 - Fasciola hepatica*
 - Dicrocoelium dendriticum*
 - Fascioloides magna*
83. Sedimentation and decanting technique is used to diagnosis of acute amphistomiasis based on the identification of following stage of the parasite's life cycle in the faeces
- Eggs
 - Matured flukes
 - Immature flukes
 - Miracidium
84. 'Thumps' is a characteristic clinical sign noticed in ascariasis infestation of
- Piglets

- b. Foals
 - c. Calves
 - d. Pups
85. The following condition is sequelae of canine spirocercosis
- a. Pulmonary emphysema
 - b. Pulmonary osteoarthropathy
 - c. Pneumonia
 - d. Osteoporosis
86. Adult haemonchus contortus worms inhabit
- a. Rumen
 - b. Small intestine
 - c. Abomasum
 - d. Large intestine
87. Lung worm infestation in horse is caused by
- a. Dictyocaulus arnfieldi
 - b. Dictyocaulus filaria
 - c. Prostrongylus rufescens
 - d. Dictyocaulus eckerti
88. Thin sow syndrome is seen in pigs affected with
- a. Ascaris suum
 - b. Toxoplasma gondii
 - c. Metastrongylus apri
 - d. Oesophagostomum dentatum
89. Ear sore in Indian buffalo
- a. Stephanofilaria stelesi
 - b. Stephanofilaria zaheri
 - c. Stephanofilaria assamensis
 - d. Stephanofilaria boomkeri
90. Intermediate host for Dipylidium caninum is
- a. Coprophagus beetle
 - b. Musca Spp.
 - c. Ctenocephalides canis
 - d. Culex Spp.
91. The species of Theileria recorded in goats is
- a. T. annulata
 - b. T. parva
 - c. T. hirci
 - d. T. mutans
92. In Toxoplasmosis, abortion and still births is common in
- a. Sheep
 - b. Cattle
 - c. Horse
 - d. Buffalo

93. Follicular mange in dog is caused by
- Sarcoptes spp
 - Psorptes spp
 - Demodex spp
 - Notoedres spp
94. Black head disease of poultry is caused by
- Heterakis gallinarum
 - Histomonas meleagridis
 - Emeria acervulina
 - Lipeurus caponis
95. Lymph node biopsy stained smear is examined for the diagnosis of
- Anaplasmosis
 - Toxoplasmosis
 - Theileriosis
 - Babesiosis
96. Dourine is characterized by
- Lymph node enlargement
 - Conjunctivitis
 - Haemoglobinuria
 - Dollar spots
97. Babesiosis is more common in
- Exotic cattle
 - Indigenous cattle
 - Buffaloes
 - None of the above
98. Method of transmission of lung worm infestation
- Ingestion of ova
 - Ingestion of 3rd stage larva
 - Ingestion of embryo
 - All of the above
99. Important clinical signs in equine strongylosis
- Arteritis
 - Aanemia
 - Colic
 - All of the above
100. The following are blood sucking nematodes
- Strongylus vulgaris
 - Haemonchus contortus
 - Ascaris suum
 - a and b

Keys:

1.	D	21	a	41	c	61	a	81	d
2.	B	22	c	42	a	62	a	82	d
3.	B	23	b	43	d	63	d	83	c
4.	C	24	c	44	a	64	b	84	a
5.	A	25	b	45	b	65	b	85	b
6.	B	26	d	46	b	66	a	86	c
7.	D	27	c	47	c	67	a	87	a
8.	C	28	b	48	b	68	a	88	d
9.	A	29	b	49	a	69	b	89	b
10.	D	30	c	50	b	70	c	90	c
11.	A	31	c	51	c	71	b	91	c
12.	D	323	d	52	a	72	a	92	a
13.	C	33	b	53	b	73	d	93	c
14.	C	34	d	54	c	74	d	94	b
15.	B	35	b	55	c	75	c	95	c
16.	D	36	c	56	a	76	b	96	d
17.	A	37	b	57	d	77	b	97	a
18.	C	38	c	58	a	78	b	98	b
19.	C	39	b	59	b	79	d	99	d
20.	A	40	d	60	c	80	c	100	d

1. Glycosuria and hyperglycemia are feature of
 - a. Enterotoxaemia
 - b. Anthrax
 - c. Tetanus
 - d. Strangles

2. Monday morning sickness in goat in Australia
 - a. Enterotoxaemia
 - b. Anthrax
 - c. Tetanus
 - d. Strangles

3. Setting of early rigor mortis in post mortem occur in
 - a. Enterotoxaemia
 - b. Anthrax
 - c. Tetanus
 - d. Strangles

4. Cholithiasis
 - a. Stone of gall bladder
 - b. Stone of intestine
 - c. Stone of ureter
 - d. Stone of urethra

5. Enterolithiasis
 - a. Stone of gall bladder
 - b. Stone of intestine
 - c. Stone of ureter
 - d. Stone of urethra

6. Nephrolithiasis
 - a. Stone of gall bladder
 - b. Stone of intestine
 - c. Stone of ureter
 - d. Stone of urethra

7. Urolith is
 - a. Stone of gall bladder
 - b. Stone of intestine
 - c. Stone of ureter
 - d. Stone of urethra

8. Common site of stone in all species is
 - a. Penis
 - b. Prostate gland
 - c. Scrotal region

- d. Ischial arch
9. Propylene glycol is given in which deficiency disease
- a. Vit C
 - b. Vit A
 - c. Vit B
 - d. Vit D
10. The only form of epilepsy where patient may die
- a. Grand mal
 - b. Petit mal
 - c. Status
 - d. All the above
11. In which disease clonic convulsions occur
- a. Strychnine poisoning
 - b. Tetanus
 - c. Epilepsy
 - d. All the above
12. In which disease tonic convulsions occur
- a. Strychnine poisoning
 - b. Tetanus
 - c. Epilepsy
 - d. All the above
13. In which disease tonoclonic convulsions occur
- a. Strychnine poisoning
 - b. Tetanus
 - c. Epilepsy
 - d. All the above
14. Goose stepping is character of which disease
- a. PEM
 - b. Vit B3 and B6 deficiency
 - c. Milk fever
 - d. Bilateral hip dysplasia
15. Orthotonous posture occurs in which disease
- a. PEM
 - b. Vit B3 and B6 deficiency
 - c. Milk fever
 - d. Bilateral hip dysplasia
16. Obturator nerve paralysis is
- a. PEM
 - b. Vit B3 and B6 deficiency
 - c. Milk fever
 - d. Bilateral hip dysplasia
17. Frog like stance is characteristic of

- a. PEM
 - b. Vit B3 and B6 deficiency
 - c. Milk fever
 - d. Bilateral hip dysplasia
18. Type of respiration in meningitis is
- a. Gasping
 - b. Biots or cheyne stokes
 - c. Dyspnoea
 - d. Biphasic
19. Bleeding from ear and nose indicates traumatic injury of
- a. Brain
 - b. Spinal cord
 - c. Head
 - d. None of the above
20. Bleeding from eye and ear indicates traumatic injury of
- a. Brain
 - b. Spinal cord
 - c. Eye
 - d. Head
21. Leuco encephalomalasia is due to deficiency of
- a. Vit A
 - b. Vit B
 - c. Vit C
 - d. Vit D
22. Paralysis of one side of body is known as
- a. Paraplegia
 - b. Hemiplegia
 - c. Spastic paralysis
 - d. Suprascapular paralysis
23. Slipped shoulder occurs in
- a. Paraplegia
 - b. Hemiplegia
 - c. Spastic paralysis
 - d. Suprascapular paralysis
24. Dropped elbow occurs in
- a. Radial paralysis
 - b. Spastic paralysis
 - c. Peronial nerve paralysis
 - d. Obturator nerve paralysis
25. Flexion of fetlock and pastern occurs in
- a. Radial paralysis
 - b. Spastic paralysis
 - c. Peronial nerve paralysis

- d. Obturator nerve paralysis
26. Calving paralysis
- a. Radial paralysis
 - b. Spastic paralysis
 - c. Peronial nerve paralysis
 - d. Obturator nerve paralysis
27. Painful intake of food is known as
- a. Anaphagia
 - b. Polyphagia
 - c. Dysphagia
 - d. Palatability
28. Inflammation of oral mucosa is known as
- a. Glossitis
 - b. Stomatitis
 - c. Palatitis
 - d. Gingivitis
29. Inflammation of tongue
- a. Glossitis
 - b. Stomatitis
 - c. Palatitis
 - d. Gingivitis
30. Inflammation of gum
- a. Glossitis
 - b. Stomatitis
 - c. Palatitis
 - d. Gingivitis
31. Inflammation of parotid gland
- a. Parotitis
 - b. Parotiditis
 - c. Salivaritis
 - d. Lacrymitis
32. Stability of froth in rumen occurs at which pH of rumen
- a. 5
 - b. 6
 - c. 6.2-6.6
 - d. 6.8-7.2
33. Heart sound in LDA
- a. Splashing
 - b. Pebble in well
 - c. Fire pitch
 - d. All the above
34. Which haematological disorder occur in allergic condition
- a. Neutrophilia
 - b. Lymphopenia

- c. Eosinophilia
 - d. Monocytosis
35. Haematological change in acute local peritonitis is
- a. Neutrophilia
 - b. Leucopenia
 - c. Neutropenia
 - d. Monocytosis
36. Which haematological disorder occur in viral infection
- a. Neutrophilia
 - b. Lymphopenia
 - c. Eosinophilia
 - d. Monocytosis
37. Which haematological disorder occur in chronic infection is
- a. Neutrophilia
 - b. Lymphopenia
 - c. Eosinophilia
 - d. Monocytosis
38. Which haematological disorder occur in bacterial infections
- a. Neutrophilia
 - b. Lymphopenia
 - c. Eosinophilia
 - d. Monocytosis
39. Constipation alternate with diarrhoea and clay coloured faeces indicates
- a. Hepatits
 - b. Peritonitis
 - c. Cirrhosis
 - d. Jaundice
40. Increased connective tissue of liver is known as
- a. Hepatits
 - b. Peritonitis
 - c. Cirrhosis
 - d. Jaundice
41. Yellow discolouration of tissues and body fluids due to excess bile pigments occur in
- a. Hepatits
 - b. Peritonitis
 - c. Cirrhosis
 - d. Jaundice
42. Liver biopsy routinely done in
- a. Dog
 - b. Cattle
 - c. Sheep
 - d. Camel
43. The test for bile salt in urine is
- a. Benedicts test

- b. Hay's sulfur test
 - c. Ascis test
 - d. Alizurins test
44. Sneezing is cardinal symptom of
- a. Rhinitis
 - b. Bronchitis
 - c. Pneumonia
 - d. Heaves
45. Perenicious anaemia occurs due to deficiency of
- a. Copper
 - b. Cobalt
 - c. Iron
 - d. All the above
46. Folic acid deficiency causes which type of anaemia
- a. Hypochromic
 - b. Hyperchromic
 - c. Macrocytic
 - d. Microcytic
47. Bordetella bronchiseptica (kennel cough) secondary to which disease
- a. CD
 - b. ICH
 - c. Parvo
 - d. Rabies
48. Auscultation of abdomen in spasmodic colic reveals
- a. Tympanic sounds
 - b. Wheezing sounds
 - c. Gurgling and plashing sounds
 - d. Continuous borborygmus
49. Left sided CHF causes involvement of
- a. Lungs
 - b. Liver
 - c. Kidney
 - d. All the above
50. Right sided CHF causes involvement of
- a. Spleen
 - b. Liver
 - c. Kidney
 - d. All the above

Key:

1	a	11	a	21	c	31	b	41	d
2	a	12	b	22	b	32	b	42	a
3	c	13	c	23	d	33	a	43	b
4	a	14	b	24	b	34	c	44	a
5	b	15	c	25	c	35	b	45	b
6	c	16	d	26	d	36	b	46	c
7	d	17	d	27	c	37	d	47	a
8	d	18	b	28	b	38	a	48	d
9	b	19	a	29	a	39	a	49	a
10	c	20	d	30	d	40	c	50	d

1. Number of new cases that occur in a known population over a specified period of time
 - a) Prevalence
 - b) Incidence
 - c) Attack rate
 - d) Risk

2. A disease that occurs with predictable regularity in a population unit with only relatively minor fluctuations in its frequency
 - a) Epidemic
 - b) Endemic
 - c) Sporadic
 - d) Sub clinical

3. Experimental animal used for diagnosis of Glanders.
 - a) Rabbit
 - b) Guinea Pig
 - c) Mice
 - d) Hamster

4. Corneal impression smear examination is a diagnostic tool for which disease
 - a) Foot and Mouth Disease
 - b) New Castle Disease
 - c) Canine Distemper
 - d) Canine Parvo Viral infection

5. The disease in which MAT is commonly employed for diagnosis
 - a) Brucellosis
 - b) Leptospirosis
 - c) Listeriosis
 - d) Anthrax

6. The intra cytoplasmic inclusion bodies found in Fowl pox
 - a) Koch's blue bodies
 - b) Bollinger bodies
 - c) Langhans cells
 - d) Sulphur granules

7. Drug used for treatment of Tuberculosis
 - a) Rifampicin
 - b) Ethambutol
 - c) Isoniazid
 - d) All the above

8. *Brucella abortus* strain used for preparation of diagnostic antigens
 - a) Strain 19

- b) Strain 99
- c) Strain RB 51
- d) Strain 45/20

9. Major toxin produced by *Clostridium perfringens* type D

- a) Alpha toxin
- b) Beta toxin
- c) Delta toxin
- d) Epsilon toxin

10. Staining technique used for detection of Cryptococcal organisms

- a) Ziehl Nelson's staining
- b) LCB staining
- c) Claudius staining
- d) Brodhurst Palley staining

11. Ideal clinical sample to be collected for conducting Ascolis test for diagnosis of Anthrax

- a) Blood
- b) Spleen
- c) Muzzle piece
- d) Muscle

12. Allergic test is employed for diagnosis of

- a) Tuberculosis
- b) Johnes Disease
- c) Glanders
- d) All the above

13. Precipitation test used for diagnosis of anthrax

- a) Ascolis test
- b) RBPT
- c) Mc Faydean reaction
- d) Gel precipitation test

14. Pathognomonic lesion of Pasteurellosis in rabbits

- a) Splenic enlargement
- b) Tiger heart
- c) Haemorrhagic tracheitis
- d) Zebra stripes of intestine

15. Organism causing Actinomycosis in human beings

- a) *A. Bovis*
- b) *A. Israeli*
- c) *A. hominis*
- d) *A. Ligniersii*

16. Knott's technique is used for diagnosis of

- a) Trypanosomosis
- b) Microfilarosis

- c) Hydatidosis
 - d) Trichomoniasis
17. Parasite causing itchy leg in cattle
- a) Sarcoptes
 - b) Psoroptes
 - c) Choreoptes
 - d) Demodex
18. Infective stage of amphistome in cattle
- a) Metacercaria
 - b) Cercaria
 - c) Sporocyst
 - d) Redia
19. Intermediate stage of *Taenia hydatigena*
- a) Cysticercus bovis
 - b) Cysticercus cellulosae
 - c) Cysticercus tenuicollis
 - d) Coenurus cerebralis
20. Barber's pole worm is
- a) *Heterakis gallinae*
 - b) *Haemonchus contortus*
 - c) *Trichstrongylus axei*
 - d) *Trichuris vulpis*
21. Diagnostic test employed for the diagnosis of hydatidosis
- a) Hotis test
 - b) Ascolis test
 - c) Casoni's test
 - d) Widal test
22. Clay pipe stem liver
- a) Fasciolosis
 - b) Amphistomosis
 - c) Toxocarosis
 - d) Coccidiosis
23. Red mite of poultry
- a) *Cnemidoptes gallinae*
 - b) *Cnemidoptes mutans*
 - c) *Dermanyssus gallinae*
 - d) *Menopon gallinae*
24. The dose and route of tartar emetic used for treatment of Schistosomiasis
- a) 2.5 mg/ kg subcutaneously
 - b) 5 mg/ kg intra muscularly
 - c) 5 mg/ kg intravenously
 - d) 2.5 mg/ kg intravenously
25. Measly pork

- a) *T. saginata*
- b) *T. Solium*
- c) *T. hydatigena*
- d) *T. Taeniformis*

26. Scientist who discovered Anthrax bacilli

- a) Luois Pasteur
- b) Edward Jenner
- c) Robert Koch
- d) David Bruce

27. Clostridium perfringens type B causes

- a) Struck
- b) Lamb dysentery
- c) pulpy kidney disease
- d) Black disease

28. Ideal medium for culturing leptospiral organisms in laboratory

- a) EMJH medium
- b) Stuart's medium
- c) Fletchers medium
- d) All the above

29. Flabby mastitis is caused by

- a) *Leptospira hadjo*
- b) *Streptococcus agalacta*
- c) *Staphylococcus aureus*
- d) *Escherischia coli*

30. Elevated BUN and Bilirubin levels are common features in

- a) Brucellosis
- b) Haemorrhagic septicaemia
- c) Leptospirosis
- d) Johne's disease

31. Actinomycosis is characterized by

- a) Osteoporosis
- b) Osteofibrosis
- c) Rarefying osteomyelitis
- d) Fibrosarcoma

32. Normal pH of milk

- a) 6.4 to 6.6
- b) 7.6 to 6.8
- c) 7.0 to 7.2
- d) 5.8 to 6.0

33. FMD virus type not common in India

- a) Type O
- b) Type A
- c) Type C

- d) Type Asia 1
34. Red nose in bovines caused by
- Bovine herpes virus-1
 - Foot and mouth disease virus
 - Rinderpest virus
 - None of the above
35. Members of family Rhabdo viridae are responsible for
- Rabies
 - Vesicular stomatitis
 - Ephemeral fever
 - All the above
36. RT-PCR is not suitable for diagnosis of
- Foot and mouth disease
 - Swine fever
 - Sheep pox
 - Rabies
37. Ranikhet disease vaccine administered through oculo nasal route
- Lasota
 - Mukteswar strain
 - R2B
 - All the above
38. Vaccine administered in day old chicks against
- Gumboro disease
 - Mareks disease
 - Fowl pox
 - None of the above
39. Schistosomosis can be treated with
- Praziquantel
 - Tartar emetic
 - Lithium antimony tartrate
 - All the above
40. Dollar spots are seen in
- Erysipelas
 - Dourine
 - Ring worm
 - Swine fever
41. Milk spot in liver is an important pathgnomic lesion in
- Toxocara canis*
 - Ascaris suum*
 - Toxocara vitulorum*
 - Ascaridia galli*
42. Summer mastitis is caused by
- Streptococcus agalactiae*
 - Staphylococcus aureus*

- c) *Acranobacterium pyogenes*
 - d) *Pseudomonas aeruginosa*
43. Biliary amphistomosis is caused by
- a) *Paramphistome explanatum*
 - b) *Paramphistome cervi*
 - c) *Cotylophoron cotylophorum*
 - d) *Gastrothylax cruminifer*
44. Pseudoglanders is caused by
- a) *Burkholderia mallei*
 - b) *Burkholderia pseudomallei*
 - c) *Histoplasma farciminosum*
 - d) *Pseudomonas aeruginosa*
45. Bollinger bodies is an inclusion bodies found in
- a) Cowpox
 - b) Sheep pox
 - c) Avian pox
 - d) Camel pox
46. Blue eye condition seen in
- a) Canine parvoviral infection
 - b) Canine distemper
 - c) Canine adenoviral infection
 - d) Canine leptospirosis
47. Metacercariae stage is not present in one of the trematode infection
- a) Amphistomosis
 - b) Schistosomosis
 - c) Fasciolosis
 - d) Paragonimosis
48. Crohn's disease is associated with
- a) *Mycobacterium paratuberculosis*
 - b) *Mycobacterium tuberculosis*
 - c) *Mycobacterium bovis*
 - d) *Mycobacterium marinum*
49. canine cyclic thrombocytopenia is caused by
- a) *Ehrlichia canis*
 - b) *Ehrlichia platys*
 - c) *Ehrlichia ewingii*
 - d) *Ehrlichia chaffeensis*
50. CAMP test is used for diagnosis of
- a) *Streptococcus agalactiae*
 - b) *Staphylococcus aureus*
 - c) *Streptococcus dysagalactiae*
 - d) *Streptococcus uberis*

51. Coughing up of blood is termed as
- Epistaxis
 - Haematemesis
 - Haemoptysis
 - Haematochezia
52. Xerophthalmia occurs due to deficiency of
- Vitamin D
 - Ascorbic acid
 - Riboflavin
 - Vitamin A
53. Majority of clinical cases of Parturient paresis occurs during
- Advanced stages of pregnancy
 - Within 48 hours of parturition
 - During peak production
 - Mid lactation
54. Jugular pulse is important clinical evidence in
- Hypocalcemia
 - Hypomagnesemia
 - TRP
 - Shock
55. An example of plasma volume expander
- Ringers lactate
 - 2.5% Dextrose
 - Gelatin
 - 0.89% Sodium chloride
56. Glutathione peroxidase is associated with
- Copper
 - Zinc
 - Cobalt
 - Selenium
57. Total loss of voluntary movement of limbs on one side of the body
- Hemiplegia
 - Paraplegia
 - Myoclonus
 - Myotonus
58. Sway back in lambs associated with deficiency of
- Copper
 - Cobalt
 - Selenium
 - Phosphorus
59. Glycogen content of meat is highest in
- Beef
 - Mutton
 - Horse meat

- d) Chevon
60. Goose stepping gait in swine due to deficiency of
- a) Vitamin A
 - b) Pantothenic acid
 - c) Vitamin E
 - d) Nicotinic acid
61. Normal colour of mucous membrane in buffaloes
- a) Pale roseate
 - b) Pink
 - c) Slight icteric
 - d) Brick red
62. Intra ocular pressure is determined by
- a) Shiotz tonometer
 - b) Otoscope
 - c) Ophthalmoscope
 - d) Slit lamp biomicroscope
63. Presence of blood in the last part of urination indicates bleeding from
- a) Kidney
 - b) Urethra
 - c) Urinary bladder
 - d) External genitalia
64. William's method of auscultation in cattle is used for diagnosing
- a) LDA
 - b) RDA
 - c) Vagal indigestion
 - d) TRP
65. Presence of dark digested blood in the faeces is called
- a) Melena
 - b) Haematochezia
 - c) Odynophagia
 - d) Haematemesis
66. Accumulation of pus in the anterior chamber of eye
- a) Hyphaema
 - b) Hypopion
 - c) Conjunctivitis
 - d) Haemophthalmia
67. Papple shaped abdomen in cattle observed in
- a) LDA
 - b) RDA
 - c) Vagal indigestion
 - d) TRP
68. Normal intestinal sounds are termed as
- a) Borborygmus
 - b) Resonance

- c) Tympanic
 - d) Splashing
69. Transient loss of consciousness due to reduced oxygen supply to brain
- a) Coma
 - b) Epilepsy
 - c) Ataxia
 - d) Syncope
70. Decreased respiratory rate is termed as
- a) Orthopnoea
 - b) Oligopnoea
 - c) Dyspnoea
 - d) Apnoea
71. The act that makes offences like beating and starving of animals punishable is
- a) Prevention of cruelty to animals act
 - b) Cattle cruelty act
 - c) Dourine act
 - d) ABC rules
72. Rapid and painless humane killing of animals is
- a) Maiming
 - b) Euthanasia
 - c) Bishoping
 - d) Culling
73. Nitrates in milk indicates
- a) Addition of skim milk
 - b) Adulteration with water
 - c) Presence of urea
 - d) Addition of preservatives
74. Most common fixative for preservation of samples for histopathological examination
- a) Ethanol
 - b) 50% Glycerol saline
 - c) 10% Formailn
 - d) Rectified spirit
75. The witness who testifies to the facts observed by him is known as
- a) Common witness
 - b) Expert witness
 - c) Skilled withness
 - d) Hostile witness
76. Bestiality is punishable under IPC
- a) IPC 377
 - b) IPC 420
 - c) IPC 127
 - d) IPC 426

77. Making an animal useless by means of violence
- Bishoping
 - Maiming
 - Bestiality
 - Cruelty
78. Document compelling attendance of a witness in a court of law
- Report
 - Bail
 - Oath
 - Subpoena
79. Wound produced due to a sharp knife is called
- Lacerated wound
 - Incised wound
 - Punctured wound
 - Contused wound
80. First report in vetero legal case is called
- Inquest
 - FIR
 - Preliminary report
 - Autopsy report
81. Steatorrhea occurs in disease conditions associated with
- Liver
 - Spleen
 - Kidney
 - Stomach
82. Cardiac tamponade occurs in
- Myocarditis
 - Arrhythmia
 - Valvular endocarditis
 - Effusive pericarditis
83. Anamnesis refers to
- Patient data
 - Case history
 - Clinical diagnosis
 - Physical examination
84. A centrally acting anti emetic
- Tripple carb
 - Metoclopramide
 - Sucralfate
 - None of the above
85. Myxedema is associated with
- Hypothyroidism
 - Hyperthyroidism

- c) Hypoadrenocorticism
- d) Hyperadrenocorticism

86. Cretinism is associated with

- a) Hypothyroidism
- b) Hyperthyroidism
- c) Hypoadrenocorticism
- d) Hyperadrenocorticism

87. Most common clinical sign in congenital cardiac disease in a pup

- a) Congested mucosa
- b) Injected mucoa
- c) Cyanotic mucosa
- d) Icteric mucosa

88. 'P' pulmonale is

- a) Increased P wave amplitude
- b) Increased P wave duration
- c) Abnormal P wave
- d) Negative P wave

89. Regenerative anaemia is characterized by

- a) Decreased RBC
- b) Decreased PCV
- c) Increased number of reticulocytes
- d) Decreased haemoglobin concentration

90. Systolic murmurs associated with

- a) AV valve insufficiency
- b) Pulmonary valve stenosis
- c) Aortic valve stenosis
- d) All the above

91. Eclampsia in bitches is treated with

- a) 10% Calcium gluconate
- b) Magnesium carbonate
- c) 50% Dextrose
- d) Thiamine

92. Uraemia in dogs accompanied by

- a) Fever
- b) Ascites
- c) Abdominal pain
- d) Vomiting

93. Most potent antigenic blood group in dogs

- a) DEA 1.1
- b) DEA 1.2

- c) DEA 4
 - d) DEA 7
94. Baby pig disease is characterized by
- a) Hypocalcemia
 - b) Anaemia
 - c) Hypoglycemia
 - d) Hypoproteinemia
95. Valvular diseases mainly characterized by
- a) Gallops
 - b) Arrhythmias
 - c) Murmurs
 - d) Friction sounds
96. Leucomalachite green test is used to detect
- a) Semen stain
 - b) Urine
 - c) Blood stain
 - d) Parasites
97. Losartan is
- a) Calcium channel blocker
 - b) Proton pump inhibitor
 - c) Angiotensin II receptor blocker
 - d) Sodium channel blocker
98. Which of the following is an Angiotensin converting enzyme (ACE) inhibitor
- a) Enalapril
 - b) Benazepril
 - c) Imidapril
 - d) Diltiazem
99. Clear fluid appears in ultrasonography as
- a) Hyperechoic
 - b) Hypoechoic
 - c) Anechoic
 - d) Isoechoic
100. Clinical finding that is not associated with large bowel diarrhoea
- a) Melena
 - b) Urgency to defecate
 - c) Increased frequency
 - d) Tenesmus

Key:

1	b	11	c	21	c	31	c	41	b	51	c	61	d	71	a	81	a	91	a
2	b	12	d	22	a	32	a	42	c	52	d	62	a	72	b	82	d	92	d
3	b	13	a	23	c	33	c	43	d	53	b	63	b	73	b	83	b	93	a
4	c	14	c	24	d	34	a	44	c	54	c	64	d	74	c	84	b	94	c
5	b	15	b	25	b	35	d	45	c	55	c	65	b	75	a	85	a	95	c
6	b	16	b	26	c	36	c	46	c	56	d	66	b	76	a	86	a	96	c
7	d	17	c	27	b	37	a	47	b	57	a	67	c	77	b	87	c	97	c
8	b	18	a	28	d	38	b	48	a	58	a	68	a	78	d	88	a	98	d
9	d	19	c	29	a	39	d	49	b	59	c	69	d	79	b	89	c	99	c
10	c	20	b	30	c	40	b	50	b	60	b	70	b	80	a	90	d	100	a

ICAR-JRF Model Questions in the Subject of Veterinary Preventive Medicine

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1. The following organism causes environmental mastitis
 - a) *Staphylococcus aureus*
 - b) *Streptococcus agalactiae*
 - c) *Escherichia coli*
 - d) *Mycobacterium bovis*
2. The following test is a most simple, rapid and cow side test that provide valuable tool to detect clinical mastitis and can be used for routine examination of milk of lactating cow by the farmers.
 - a) California mastitis test
 - b) White side test
 - c) NAGase test
 - d) Strip cup test
3. Metastatic infection resulting in formation abscess in any organs of the body in horses infected with Strangles is known as
 - a) Chondroids
 - b) Muscle infarction
 - c) Strangles in burros
 - d) Bastard strangles
4. Endocarditis occurs in pigs affected with Erysipelas in following form of the disease
 - a) Hyperacute form
 - b) Chronic form
 - c) Skin form
 - d) Acute form
5. Ascoli's test done for the diagnosis of anthrax is a
 - a) Thermoprecipitation test
 - b) Immunoblot test
 - c) Fluorescent antibody technique
 - d) Agglutination test
6. Shaker foal syndrome is a disease caused by
 - a) Wound botulism
 - b) Forage botulism
 - c) Toxico-infectious botulism
 - d) Carrion associated botulism

7. Braxy in sheep is caused by
- Clostridium sordelli*
 - Clostridium septicum*
 - Clostridium novyi*
 - Clostridium perfringens*
8. The level of following enzyme in the serum is a reliable indicator of transfer of passive immunity in new born calves to assess the risk of calf for colibacillosis.
- Alanine aminotransferase
 - Aspartate aminotransferase
 - Gamma- glutamyl transferase
 - Alkaline phosphatase
9. The optimum age for vaccination of cattle in uninfected herds with *Brucella abortus* strain 19 vaccine is
- Under two months of age
 - Between 4 and 8 months of age
 - Between 2 and 3 years of age
 - Between 6 and 8 years of age
10. True black leg in cattle is caused by
- Clostridium chauvoei*
 - Clostridium novyi*
 - Clostridium septicum*
 - Clostridium perfringens*
11. The following diagnostic test is used to differentiate bovine tuberculosis from non specific sensitization suspected to be due to Johne's disease or Avian tuberculosis
- Single intradermal test
 - Short thermal test
 - Stormont test
 - Comparative test
12. The following diagnostic test is used for the flock screening programme to identify the sheep infected with Johne's disease
- Agar gel immunodiffusion test
 - Complement fixation test
 - Ziehl Neelsen staining technique
 - Using genetic probes
13. The following serological test is most commonly used for the diagnosis of Leptospirosis
- Modified agglutination test
 - Agar gel immunodiffusion test
 - Complement fixation test
 - Microscopic agglutination test
14. The following statement is true in case of actinomycosis
- The synonym is wooden tongue
 - The organism is Gram negative in nature
 - Involvement of local lymph nodes do not occur
 - Visible enlargement of submaxillary and parotid lymph nodes occur

15. The name “Botulism “is originated from the Latin term ‘botulus’ which means
- Garbage
 - Sausage
 - Paralysis
 - Forage
16. The following species is more sensitive to Aflatoxin among the birds
- Chicken
 - Duck
 - Turkey
 - Japanese quail
17. Ulcerative lymphangitis is caused by
- Corynebacterium pseudotuberculosis*
 - Campylobacter jejuni*
 - Coccidioides immitis*
 - Histoplasma capsulatum*
18. Greyish white cup lesions mostly on the comb is seen in fowl affected with following disease
- Thrush
 - Brooder pneumonia
 - Avian mycoplasmosis
 - Favus
19. Feeding of poor quality silage can be predisposing factor occurrence of following disease of cattle
- Leptospirosis
 - Johne’s disease
 - Brucellosis
 - Listeriosis
20. The following antibiotic is effective in the treatment of Anaplasmosis of cattle
- Procaine pencilin
 - Oxytetracycline
 - Ceftiofur
 - Streptomycin
21. In case of bovine viral diarrhoea, persistently viraemic calf can be born if the foetus gets infection with BVD virus during following days of gestation
- 45 to 125 days
 - More than 180 days
 - 1 to 45 days
 - 125 to 175 days
22. In the eggs of the chicken, albumen loses its viscosity resulting in “watery white” if the bird is affected with following disease
- Infectious laryngotracheitis
 - Ranikhet disease
 - Infectious bronchitis
 - Avian influenza

23. Infarction of the mucosa of the gall bladder and turkey egg appearance of the kidney are the gross lesions found on post mortem examination of pig affected with following disease
- Transmissible gastroenteritis
 - Classical swine fever
 - Swine influenza
 - Pseudorabies
24. The deficiency of following mineral is associated with cattle affected with Bovine ephemeral fever
- Calcium
 - Magnesium
 - Iron
 - Phosphorus
25. The following animal species can be affected with African horse sickness apart from equines
- Cat
 - Sheep
 - Dog
 - Cattle
26. Erosion of tip of cheek papillae especially at the commissure of lips is the post mortem finding seen in cattle affected with following disease
- Bovine virus diarrhea
 - Bovine ephemeral fever
 - Malignant catarrhal fever
 - Foot and mouth disease
27. Infectious bovine rhinotracheitis is caused by
- Bovine Herpes virus 1
 - Bovine pestivirus
 - Alcelaphine herpesvirus 1
 - Bovine corona virus
28. Bluetongue is an arthropod borne disease of sheep transmitted biologically by
- Haemophysalis* species ticks
 - Melophagus ovinus* ked
 - Linognathus ovillus* lice
 - Culicoides* species midges
29. Myoclonus is a sign exhibited by dogs affected with
- Canine parvoviral gastroenteritis
 - Canine coronavirus gastroenteritis
 - Infectious canine hepatitis
 - Canine distemper
30. An anti-cestodal drug used for the treatment of immature amphistomosis in sheep is
- Albendazole
 - Niclosamide
 - Oxyclozanide
 - Hexachloraphene

31. The characteristic postmortem lesion in the pigs that died due to chronic ascariasis is
- Milky white spots in liver
 - Button ulcers in duodenum
 - Turkey egg appearance in kidneys
 - Gross enlargement of spleen
32. The following drug is drug of choice for regular dosing of dogs to eliminate *Echinococcus granulosus* as a preventive measure of hydatidosis
- Niclosamide
 - Ivermectin
 - Pyrantel pomate
 - Praziquantel
33. Husk or Hoose in cattle is caused by is
- Dictyocaulus viviparus*
 - Muellerius capillaries*
 - Prostrongylus rufescens*
 - Metastrongylus apri*
34. Pipe stem faeces is a clinical sign seen in cattle affected with babesiosis caused by
- Babesia bovis*
 - Babesia divergens*
 - Babesia bigemina*
 - Babesia major*
35. In acute fascioliasis, the following type of anaemia is seen
- Normocytic anaemia
 - Microcytic anaemia
 - Macrocytic anaemia
 - Hypochromic anaemia
36. Thin sow syndrome can be seen in pigs affected with
- Lung worm infestation
 - Ascariasis
 - Oesophagostomosis
 - Coccidiosis
37. The metacestode of following tape worm is found in striated muscle of cattle
- Taenia saginata*
 - Taenia solium*
 - Taenia asiatica*
 - Taenia ovis*
38. The following parasite uses two intermediate hosts viz., land snail and ant for the completion of its life cycle
- Fasciola hepatica*
 - Fascioloides magna*
 - Dicrocoelium dendriticum*
 - Fasciola gigantica*

39. The following parasitic form of the lung worm is identified in the faecal sample of cattle affected with *Dictyocaulus viviparus*

- a) Egg
- b) Adult worm
- c) Microfilaria
- d) Larvae

40. Disease caused by *Trypanosoma evansi* in horse is called

- a) Dourine
- b) Surra
- c) Chagas disease
- d) Nagan

Key:

Q.No.	Answer	Q.No.	Answer
1.	c	21	a
2.	d	22	c
3.	d	23	b
4.	b	24	a
5.	a	25	c
6.	c	26	c
7.	b	27	a
8.	c	28	d
9.	b	29	d
10	a	30	b
11	d	31	a
12	a	32	d
13	d	33	a
14	c	34	b
15	b	35	a
16	b	36	c
17	a	37	a
18	d	38	c
19	d	39	b

20	b	40	b
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Questions: Veterinary Microbiology

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1. Contact dermatitis is example of
 - a) Type I hypersensitivity
 - b) Type II hypersensitivity
 - c) Type III hypersensitivity
 - d) Type IV hypersensitivity
2. Secretory Immunoglobulin is
 - a) IgG
 - b) IgM
 - c) IgA
 - d) IgD
3. The C3 Convertase of the classical pathway of complement activation
 - a) C4b2b
 - b) C3B Bb
 - c) C4b2a
 - d) None
4. Messengers or the signaling molecules of the immune system are
 - a) Complement
 - b) Cytokines
 - c) Antibody
 - d) None
5. Toll- like receptor TLR2 recognizes
 - a) Bacterial peptidoglycan
 - b) Bacterial lipopolysaccharides
 - c) Flagella
 - d) None
6. Hinge region is absent in
 - a) IgM
 - b) IgD

- c) IgG
 - d) IgA
7. Forssman's antigens are
- a) *Salmonella* and *E. coli*
 - b) *Brucella* and *Yersinia*
 - c) *Salmonella* and *Yersinia*
 - d) None.
8. ELISA is an example of
- a) Primary immuno assay
 - b) Secondary immunoassay
 - c) Tertiary immunoassay
 - d) None
9. Bacteria replicate by
- a) Sexual method
 - b) Budding
 - c) Production of endospores
 - d) Binary fission
10. Replication of the double stranded DNA molecule in a bacterium is by
- a) semi-conservative method
 - b) conservative method
 - c) both a & b
 - d) None
11. Aseptate fungi are also called
- a) dimorphic fungi
 - b) yeast-like fungi
 - c) coenocytic fungi
 - d) mold
12. Extrachromosomal elements present in certain bacteria are called
- a) plasmids
 - b) phagemids
 - c) cosmids
 - d) DNA
13. Uptake of naked DNA as mode of gene transfer in bacteria is called
- a) transformation
 - b) conjugation
 - c) transduction
 - d) translocation
14. Sex pili helps in transfer of bacterial plasmids in
- a) transformation
 - b) conjugation
 - c) transduction
 - d) translocation

15. Phage-mediated transfer of DNA in bacteria is called
- transformation
 - conjugation
 - transduction
 - translocation
16. Relocations of portions of DNA in the genome of bacteria by jumping genes (transposable elements) is called
- transformation
 - conjugation
 - transduction
 - transposition
17. The bacteria which require 5-10% carbon dioxide tension are called
- anaerobes
 - capnophiles
 - mesophiles
 - facultative anaerobes
18. The bacteria which optimally grow at 45-60°C are called
- thermophiles
 - capnophiles
 - mesophiles
 - psychrophiles
19. An example of pigment producing bacteria
- Haemophilus*
 - Pseudomonas*
 - Streptococcus*
 - Clostridia*
20. Serum is sterilized by
- hot air oven
 - autoclave
 - tyndallization
 - filtration
21. Metachromatic granules present in corynebacteria are otherwise called
- volutin granules
 - Babes Ernst granules
 - polar bodies
 - all the above
22. Gram positive bacterial pathogens of animals which produce endospores
- Bacillus*
 - Clostridia*
 - Both a & b
 - None
23. Agar used in bacteriological media
- acts as solidifying agent

- b) provides nutrition to bacteria
 - c) both a & b
 - d) only b
24. The bacteriophage which causes lysis of bacteria is called
- a) prophage
 - b) temperate phage
 - c) coliphage
 - d) lytic phage
25. Pox virus is a DNA virus which replicates in
- a) host cell nucleus
 - b) host cell cytoplasm
 - c) both cytoplasm and nucleus
 - d) None
26. Viruses
- a) possess either DNA or RNA
 - b) are obligate intracellular parasites
 - c) possess protein coat called capsid
 - d) all the above
27. Interferons are
- a) virus specific
 - b) host specific
 - c) both virus and host specific
 - d) none
28. Knob like projections from the envelope of certain viruses are termed
- a) peplomers
 - b) capsid
 - c) matrix proteins
 - d) none
29. An example of polymorphic fungi is
- a) *Aspergillus* sp
 - b) Dermatophytes
 - c) *Candida* sp
 - d) Yeast
30. Intracytoplasmic inclusion bodies produced by rabies virus are
- a) Bollinger
 - b) Borrel bodies
 - c) Negri bodies
 - d) reticulate bodies
31. Bacteria with peritrichous flagella
- a) *Staphylococcus*
 - b) *E. coli*
 - c) *Pseudomonas*
 - d) *Leptospira*

32. Emil Metchnikoff discovered
- a) opsonins
 - b) Antibodies
 - c) complements
 - d) Phagocytosis
33. The technique employed for the production of monoclonal antibody
- a) cell culture technology
 - b) recombinant DNA technology
 - c) hybridoma technology
 - d) all the above
34. Largest animal virus is
- a) Orthomyxovirus
 - b) Herpes virus
 - c) Adenovirus
 - d) Pox virus
35. Smallest animal virus is
- a) Picorna virus
 - b) Circo virus
 - c) Calici virus
 - d) Arena virus
36. The common opsonins are
- a) antibodies
 - b) complements
 - c) both antibody and complement
 - d) neither antibody nor complement
37. Interdigitating dendritic cells seen in dermis (skin) are called
- a) Langerhan's cells
 - b) Mesangial cells
 - c) Glial cells
 - d) Histiocytes
38. Atopy is an example of
- a) Type I hypersensitivity
 - b) Type II hypersensitivity
 - c) Type III hypersensitivity
 - d) Type IV hypersensitivity
39. The type of hypersensitivity mediated by antigen-antibody complexes is
- a) Type I hypersensitivity
 - b) Type II hypersensitivity
 - c) Type III hypersensitivity
 - d) Type IV hypersensitivity
40. The following is true with Type III hypersensitivity
- a) antigen-antibody complex mediated
 - b) serum sickness is an example

- c) both a & b
 - d) only a holds good
41. Type II hypersensitivity is
- A) generally antibody (IgG or IgM) mediated cellular toxicity
 - B) blood transfusion reaction is an example
 - C) hemolytic disease of newborns is an example
 - D) sometimes induced by some drugs adsorbed on to the red cells
- a) only A, B & C are correct
 - b) only A, B & D are correct
 - c) only B, C & D are correct
 - d) all are correct
42. The antibody produced in primary immune response is
- a) IgG
 - b) IgM
 - c) IgA
 - d) IgD
43. The antibody produced in secondary immune response is
- a) IgG
 - b) IgM
 - c) IgA
 - d) IgE
44. The reaginic antibody is
- a) IgG
 - b) IgM
 - c) IgA
 - d) IgE
45. The secondary lymphoid organ which deals with blood borne antigen is
- a) lymphnode
 - b) Spleen
 - c) peyer's patches
 - d) tonsil
46. The motile phagocytic cells involved in parasitic immunity is
- a) basophils
 - b) neutrophils
 - c) eosinophils
 - d) mast cells
47. The antigen processing and presenting cells are
- a) Macrophages
 - b) basophils
 - c) Dendritic cells
 - d) all the above
48. T-helpers cells
- a) are CD4+

- b) help humoral immunity
 - c) help cell mediated immunity
 - d) all the above
49. Exogenous antigens
- a) are processed by endocytic pathway
 - b) are presented along with MHC-II
 - c) both a & b
 - d) only a) holds good
50. CD8+ immune cells are
- a) T-helper cells
 - b) T-cytotoxic cells
 - c) Null cells
 - d) B-cells
51. Haptens are
- A) substances with very little or no antigenic property
 - B) usually non-protein substances of low molecular weight
 - C) incomplete antigens but capable of inducing antibody formation by themselves
 - D) acquire antigenicity when they are coupled to a protein carrier molecule
 - a) all are correct
 - b) only A, B & C are correct
 - c) only B, C & D are correct
 - d) only A, B & D are correct
52. Viruses are purified by:
- a) Differential centrifugation
 - b) Affinity chromatography
 - c) Enzymatic degradation
 - d) all of the above
53. The major component of cell wall of Gram negative bacteria is
- a) Lipoprotein
 - b) Teichoic acid
 - c) Lipopolysaccharide (LPS)
 - d) Peptidoglycon
54. The endotoxic component of bacterial cell wall is
- a) Lipoprotein
 - b) Teichoic acid
 - c) Lipopolysaccharide (LPS)
 - d) Peptidoglycon
55. Bacteria which possess cluster/ tuft of flagella at both the ends
- a) Monotrichous
 - b) Lophotrichous
 - c) Amphitrichous
 - d) Peritrichous
56. Viruses are normally cultured in laboratory by
- a) Cell culture systems

- b) Embryonated eggs
 - c) Laboratory animals
 - d) all of the above
57. The generic variation in bacteria could be due to
- a) Mutation
 - b) Transposition
 - c) Recombination
 - d) all of the above
58. Condition in which immune response is directed against self antigen is
- a) tolerance
 - b) transplantation immunity
 - c) autoimmunity
 - d) tumor immunity
59. The following type/s of antigen/s are used in agglutination tests
- a) particulate antigens
 - b) cellular antigens
 - c) insoluble antigens
 - d) all these
60. The immunoglobulin which crosses the placenta is
- a) IgG
 - b) IgM
 - c) IgA
 - d) IgD
61. The main nonspecific granular cells of the lymphoid origin involved in viral immunity and tumor immunity are
- a) macrophages
 - b) neutrophils
 - c) dendritic cells
 - d) natural killer cells
62. Heat labile portion of the serum which causes lysis of the bacteria
- a) immunoglobulins
 - b) complements
 - c) opsonins
 - d) all of these
63. Lancefield classification is used for grouping of
- a) *Staphylococcus*
 - b) *Salmonella*
 - c) *Streptococcus*
 - d) *Pasteurella*
64. First line of cellular defense (also called martyrs of immune system) is offered by
- a) macrophages
 - b) neutrophils
 - c) dendritic cells
 - d) natural killer cells

65. Laboratory animal used in 'Straus test' for the diagnosis of Glanders is
- a) rabbit
 - b) mice
 - c) male guinea pig
 - d) female guinea pig
66. 'Weil Felix' reaction is used for the diagnosis of
- a) chlamydial infection
 - b) rickettsial infection
 - c) mycoplasma infection
 - d) leptospirosis
67. Cold enrichment is used for the isolation of
- a) *Listeria*
 - b) *Yersinia*
 - c) only a)
 - d) Both(a) and(b)
68. EMJH medium is used for the isolation of
- a) *Listeria*
 - b) *Leptospira*
 - c) *M. tuberculosis*
 - d) *Campylobacter*
69. Fur tree appearance on gelatin stab media is characteristic of
- a) *B. anthracis*
 - b) *Clostridia*
 - c) *E. coli*
 - d) *Staphylococcus*
70. White scour in calves is caused by
- a) S. Dublin
 - b) *C. jejuni*
 - c) *E. coli*
 - d) *Y. enterocolitica*
71. The substance that stimulates the growth of the *Brucella* organism is
- a) Bile salt
 - b) Mannitol
 - c) Erythritol
 - d) Digitonin
72. Bipolar staining is characteristic of
- a) *M. bovis*
 - b) *B. anthracis*
 - c) *P. multocida*
 - d) *Y. enterocolitica*
73. McFadyen reaction by PCMB staining is characteristic of
- a) *B. anthracis*
 - b) *K. pneumoniae*

- c) *P. multocida*
 - d) Pneumococci
74. 'Wing rot' in poultry is caused by
- a) *S. Pullorum*
 - b) *S. aureus*
 - c) *C. psittaci*
 - d) *P. multocida*
75. 'Summer Mastitis' is caused by
- a) *Peptostreptococcus indolicus*
 - b) *Arcanobacterium pyogenes*
 - c) both a) & b)
 - d) only a)
76. Bacterial capsule is made of except in *B. anthracis* in which it is composed of
- a) polysaccharide
 - b) poly D-glutamic acid
 - c) lipoproteins
 - d) glycolipids
77. 'Medusa head' colonies are produced by
- a) *Proteus vulgaris*
 - b) *K. pneumoniae*
 - c) *P. multocida*
 - d) *B. anthracis*
78. Motility to Spirochetes is conferred by
- a) Flagella
 - b) Fimbriae
 - c) Brownian movement
 - d) Axial filament/ endoflagella
79. Strangles in horses is caused by
- a) *B. mallei*
 - b) *Cl. tetani*
 - c) *Streptococcus equi ss equi*
 - d) *S. aureus*
80. Fowl cholera is caused by
- a) *P. multocida*
 - b) *S. choleraesuis*
 - c) *S. Typhimurium*
 - d) *M. gallisepticum*
81. Fowl typhoid is caused by
- a) *P. multocida*
 - b) *S. choleraesuis*
 - c) *S. Typhimurium*
 - d) *M. gallisepticum*

82. Lumpy Jaw is caused by
- Actinomyces bovis*
 - Actinobacillus ligniersii*
 - Cl. tetani*
 - Arcanobacterium pyogenes*
83. *Burkholderia mallei* causes
- bovine farcy
 - equine farcy
 - caprine farcy
 - ovine farcy
84. Braxy in sheep is caused by
- Cl. chauvoei*
 - Cl. septicum*
 - Cl. novyi*
 - Cl. perfringens*
85. Swarming growth is characteristic of
- B. anthracis*
 - Proteus* spp.
 - P. multocida*
 - Mycobacteria*
86. Best known and oldest medium used for fungal cultivation is
- Potato dextrose agar
 - Corn meal agar
 - Tryptose agar
 - Sabouraud's dextrose agar
87. Loeffler & Frosch identified
- first human virus
 - first plant virus
 - first animal virus
 - first filterable agents
88. Genetic reassortment leading to emergence of many antigenic subtypes occurs in
- single stranded RNA viruses
 - double stranded RNA viruses
 - double stranded DNA viruses
 - segmented RNA viruses
89. Cell free virus in Marek's disease is found predominantly in
- sensory ganglion
 - base of the feather follicle
 - lymphoid tissue
 - skin
90. Hard pad disease in canines is caused by
- morbili virus
 - canine parainfluenza virus 2

- c) canine adeno virus 2
 - d) canine herpes virus
91. Infectious bovine rhinotracheitis (IBR) is caused by
- a) Bovine herpes virus 1
 - b) Bovine herpes virus 2
 - c) Bovine herpes virus 5
 - d) Alcelaphine herpes virus 1
92. Malignant catarrhal fever (MCF) is caused by
- a) Alcelaphine herpes virus 1
 - b) Ovine herpes virus 2
 - c) both a & b
 - d) None
93. Marek's disease (MD) is caused by
- a) Alcelaphine herpes virus 1
 - b) Paramyxovirus virus
 - c) Gallid herpes virus 1
 - d) Gallid herpes virus 2
94. Infectious laryngotracheitis is caused by
- a) Alcelaphine herpes virus 1
 - b) Paramyxovirus
 - c) Gallid herpes virus 1
 - d) Gallid herpes virus 2
95. Lumpy skin disease is caused by
- a) Parapox virus
 - b) Bovine herpes virus 2
 - c) Pseudocowpoxvirus
 - d) Capripox virus
96. Pseudolumpy skin disease is caused by
- a) Parapox virus
 - b) Bovine herpes virus 2
 - c) Pseudocowpoxvirus
 - d) Capripox virus
97. Fowl diphtheria is caused by
- a) Gallid herpes virus 1
 - b) Fowlpox virus
 - c) Gallid herpes virus 2
 - d) Avibirna virus
98. Three day sickness in cattle
- a) is a vector-borne disease
 - b) caused by Ephemero virus of Rhabdoviridae
 - c) both a & b
 - d) None

99. Blue tongue in sheep is
- transmitted by culicoides
 - caused by orbivirus
 - non-contagious
 - all of the above
100. Pestivirus of Flaviviridae causes
- BVD-MD
 - Classical swine fever
 - Border disease
 - all of the above
101. Migratory birds play important role in transmission of following viral disease
- NDV
 - Avian influenza
 - Rabies
 - FMD
102. The recent outbreaks of Avian influenza in India was due to the virus subtype
- H₁N₁
 - H₅N₁
 - H₇N₇
 - H₃N₂
103. Oncogenic viruses belong to the following family of viruses
- Herpes viridae
 - Papilloma viridae
 - Retro viridae
 - all of the above
104. The following disease/s is/are are caused by prions
- Bovine spongiform encephalopathy
 - Scrapie
 - Kuru and CJ disease in humans
 - all the above
105. Equine encephalitis virus belongs to the following family of viruses
- Herpesviridae
 - Togaviridae
 - Retro viridae
 - Flaviviridae
106. Swine influenza is caused by
- H₁N₁
 - H₅N₁
 - H₇N₇
 - H₃N₂
107. Which of the following is true about Marek's disease?
- Lymphoproliferative disease of poultry
 - virus is slowly cytopathic

- c) virus is highly cell associated
 - d) all of the above
108. Prions are
- a) defective viral particles
 - b) infectious nucleic acid
 - c) infectious proteinaceous particles
 - d) capsid without nucleic acids
109. Which of the following is true about FMD disease
- a) Highly contagious
 - b) virus is grouped in seven serotypes
 - c) 'O' is the most common serotype in India
 - d) all of the above
110. The following is/are true regarding the shape of virus
- a) Poxvirus is brick shaped
 - b) Corona virus is crown shaped
 - c) Rabies virus is bullet shaped
 - d) all of the above
111. The acid fastness of mycobacterium is attributed to
- a) Mycolic acid
 - b) mycosides
 - c) Glycolipids
 - d) all the above
112. Which of the following is true about Leptospira?
- a) Spiral motile bacteria
 - b) shed in urine of affected species
 - c) Produce zoonotic infections
 - d) all of the above
113. Which of the following is/are true about mycoplasma?
- a) smallest organisms capable of self replication
 - b) They lack cell wall
 - c) fastidious organisms
 - d) all of the above
114. Contagious bovine pleuropneumonia(CBPP) is caused by
- a) *Mycoplasma mycoides ss. mycoides*
 - b) *M. mycoides ss. capri*
 - c) *Mycoplasma agalactiae*
 - d) *Mycoplasma gallisepticum*
115. Neurotoxin is produced by
- a) *Clostridium tetani*
 - b) *Clostridium botulinum*
 - c) *Clostridium perfringens type -D*
 - d) all the above

116. Nagler's reaction is given by
- Cl. botulinum*
 - Cl. perfringens*
 - Bacillus anthracis*
 - E.coli*
117. Caseous lymphadenitis in sheep is caused by:
- Corynebacterium bovis*
 - Corynebacterium pseudotuberculosis*
 - Corynebacterium renale*
 - Corynebacterium ulcerance*
118. Bovine farcy is caused by:
- Nocardia farcinica*
 - Staphylococcus aureus*
 - E.coli*
 - Streptococcus pyogenes*
119. Which of the following is true about Rickettsia?
- Obligate intracellular pathogens
 - mainly arthropod-borne
 - Minute, non-motile, Gram-negative bacteria
 - all the above
120. Which of the following is true about Dermatophytes?
- Members of the Fungi Imperfecti
 - Affinity to keratinized structures
 - Cause characteristic circular skin lesions
 - all of the above
121. Dermatophytes of dog include:
- Microsporum canis*
 - Microsporum gypseum*
 - Trichophyton mentagrophytes*
 - all of the above
122. Coggin's test is used for the diagnosis
- African Horse Sickness
 - Equine infectious anaemia
 - Eastern equine encephalitis
 - Western equine encephalitis
123. The following is/ are true with complements
- They are synthesized mainly synthesized in liver
 - Complement components C_{3a} and C_{5a} are anaphylotoxins
 - Complement component C_{3b} is a potent opsonin
 - Complement components C_{3a} and C_{5a} C_{5b67} are chemotactic factors
- all are correct
 - only A, B & C are correct
 - only B, C & D are correct
 - only A, B & D are correct

124. Important features of humoral immunity is/ are
- a) mediated by B-lymphocytes
 - b) effective against extracellular antigens
 - c) recognizes antigen presented with MHC-II
 - d) all of the above
125. Important features of cell mediated immunity is/ are
- a) mediated by T-lymphocytes
 - b) recognizes antigen presented with MHC-I
 - c) effective against intracellular antigens
 - d) all of the above
126. The enzymes used in ELISA is/are
- a) Alkaline phosphatase
 - b) Horse radish peroxidase
 - c) both a) and b)
 - d) None of the above
127. The dyes used in FAT is/are
- a) FITC
 - b) Rhodamine
 - c) both a) and b)
 - d) None of the above
128. The following is/ are true with *Haemophilus*
- a) requires X and V factor
 - b) exhibits satellitism with *Staphylococci*
 - c) causes infectious coryza in chickens
 - d) All of the above
129. The following is/ are true with Freund's complete adjuvant
- a) induces strong immune response
 - b) contains mineral oil
 - c) contains heat-killed *Mycobacteria*
 - d) All of the above
130. The following is/ are true with Cytokines
- a) secreted by leukocytes and are called messengers of Immune system
 - b) regulate the interactions between lymphocytes and other leukocytes
 - c) includes lymphokines, monokines and interleukins
 - d) All of the above
131. Antigen combining sites of antibodies are called as
- a) Paratopes
 - b) Epitopes
 - c) Epitopes and Paratopes
 - d) Antigenic determinants

132. Only antibody producing cell in the immune system
- T-cell
 - B-cell
 - Plasma cell
 - NK-cell
133. Innate immunity composed of following mechanism/s
- Physical barrier
 - Phagocytosis
 - Inflammation
 - All the above
134. Contagious pustular dermatitis is
- caused by Parapox virus
 - also called orf
 - primarily a disease of sheep
 - all the above
135. The following is an example of a virus family with –ve sense RNA genome
- Coronaviridae
 - Picornavirviridae
 - Orthomyxovirviridae
 - Retrovirviridae
136. The following is true in case of pigs
- highly susceptible for FMD
 - turkey kidney appearance is the pathagnomonic lesion for hog cholera
 - acts as mixing vessel for influenza virus
 - all of the above
137. The following is true in case of IgM
- It is more efficient than other Igs at agglutination
 - It is a pentamer
 - It is more efficient than other Igs at complement activation
 - all of the above
138. Staining morphology showing Chinese letter appearance is a characteristic of
- Campylobacter*
 - Corynaebacterium* spp.
 - Brucella* organisms
 - all of the above
139. Colonies exhibiting metallic sheen appearance on EMB agar is the characteristic of
- E. coli*
 - Salmonella* spp.
 - Brucella abortus*
 - Proteus* spp
140. The members of the family Enterobacteriaceae are
- differentiated by IMVIC tests
 - catalase positive and oxidase negative

- c) both a) and b)
 - d) Neither a) nor b)
141. Hinge region in immunoglobulins
- a) confers free swing movement around the centre of the molecule
 - b) contains mainly proline residues
 - c) is absent in IgM
 - d) all of the above
142. Bacillary white diarrhea in chicks is caused by
- a) *E. coli*
 - b) *Salmonella Enteritidis*
 - c) *Salmonella Pullorum*
 - d) *Salmonella Gallinarum*
143. Lactophenol cotton blue is used for staining of
- a) *Mycoplasma* colonies
 - b) *Mycobacterium* species
 - c) Fungal organisms
 - d) Rickettsial organisms
144. Diene's stain is used for staining of
- a) *Mycoplasma* colonies
 - b) *Mycobacterium* species
 - c) Fungal organisms
 - d) Rickettsial organisms
145. Infectious canine hepatitis is caused by
- a) *Leptospira interrogans serovar canicola*
 - b) *Leptospira interrogans serovar icterohaemorrhagiae*
 - c) Canine adeno virus-1
 - d) Canine adeno virus-2
146. Fowl spirochetosis is caused by
- a) *Mycoplasma gallisepticum*
 - b) *Borrelia anserina*
 - c) *Borrelia burgdoferi*
 - d) *Borrelia coriaceae*
147. A best antigen is
- a) Large and complex
 - b) Stable and foreign
 - c) both a) and b)
 - d) Neither a) nor b)
148. A best antigen is
- a) foreign protein
 - b) foreign complex polysaccharide
 - c) foreign lipid
 - d) foreign nucleic acid

149. Lymphocytes mature within
- primary lymphoid organs
 - secondary lymphoid organs
 - tertiary lymphoid organs
 - all of the above
150. Lymphocyte acquire the ability to respond to antigens (immunocompetence) in
- primary lymphoid organs
 - secondary lymphoid organs
 - tertiary lymphoid organs
 - all of the above
151. All RNA viruses replicate in the host cell cytoplasm except the viruses
- Bornaviridae
 - Orthomyxoviridae
 - both a) and b)
 - Neither a) nor b)
152. The following is an example of a virus family with 10-12 segments in its genome
- Bunyaviridae
 - Reovirviridae
 - Orthomyxovirviridae
 - Birnavirviridae
153. The following is an example of a DNA virus with complex symmetry
- Poxvirus
 - Herpesvirus
 - Orthomyxovirus
 - Adenovirus
154. The lentogenic strains of Newcastle disease virus are
- 'F strain'
 - R2B
 - Lasota strain
 - both a)&c)
155. The following is / are true about canine distemper virus
- Is a morbilli virus
 - causes hard pad disease
 - Rock born& Ondersteport strains are vaccinal strains
 - all of the above
156. The following is / are true about canine distemper virus
- Is a morbilli virus
 - causes hard pad disease
 - Rock born& Ondersteport strains are vaccinal strains
 - all of the above
157. The SMEDI syndrome in pigs is caused by
- porcine parvo virus
 - Transmissible gastro enteritis virus

- c) porcine enterovirus strains
- d) classical swine fever virus

158. The virus which causes dwarfing and curling of embryo in embryonated eggs is
- a) Infectious bronchitis virus
 - b) IBD virus
 - c) ND virus
 - d) ILTVirus

Answer Key: Veterinary Microbiology

1. d		41. d	81. c	121. d
2. c		42. b	82. a	122. b
3. c		43. a	83. b	123. b
4. b		44. d	84. b	124. d
5. a		45. b	85. b	125. d
6. a	a	46. c	86. d	126. c
7. b	b	47. d	87. c	127. c
8. a		48. d	88. d	128. d
9. d		49. c	89. b	129. d
10. a		50. b	90. a	130. d
11. c		51. d	91. a	131. a
12. a		52. d	92. c	132. c
13. a		53. c	93. d	133. d
14. b		54. c	94. c	134. d
15. c		55. c	95. d	135. b
16. d		56. a	96. b	136. d
17. b		57. d	97. b	137. d
18. a		58. d	98. c	138. d
19. b		59. d	99. d	139. a
20. d		60. a	100. d	140. c
21. d		61. d	101. b	141. d
22. c		62. b	102. b	142. c
23. a		63. c	103. d	143. c
24. d		64. b	104. d	144. a
25. b		65. c	105. b	145. c
26. d		66. b	106. c	146. b
27. c		67. d	107. d	147. c
28. a		68. b	108. c	148. a
29. c		69. b	109. d	149. a
30. c		70. c	110. d	150. b
31. b		71. c	111. d	151. c
32. d		72. c	112. d	152. b
33. c		73. a	113. d	153. a
34. d		74. b	114. a	154. d
35. b		75. c	115. d	155. d
36. c		76. b	116. b	156. a
37. a		77. d	117. b	157. a
38. a		78. d	118. a	158. a
39. c		79. c	119. d	

40. c	80. a	120. d	
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1. The precursor of Progesterone hormone is(a)
 - a. Cholesterol
 - b. Arachidonic acid
 - c. Tyrosine
 - d. Tryptophan

2. The Precursor of Prostaglandin $F_2\alpha$ is(B)
 - a. Cholesterol
 - b. Tyrosine
 - c. Arachidonic acid
 - d. Steroid

3. The precursor of Oestrogen hormone is(a)
 - a. Cholesterol
 - b. Arachdonic acid
 - c. Tyrosine
 - d. Proteins

4. The precursor of Melatonin is (c)
 - a. Cholesterol
 - b. Arachidonic acid
 - c. Tryptophan
 - d. Vitamin A

5. Synthesis and secretion of Melatonin is greater(a)
 - a. During darkness
 - b. During bright sunlight
 - c. During slow sunlight
 - d. During high temperature

6. Ovulation occurs in cow during C
 - a. Proesterus
 - b. Estrus
 - c. Metestrus
 - d. Diestrus

7. Ovulation occurs in She-buffalo during c)
 - a. Proestrus
 - b. Estrus

- c. Metestrus
 - d. Diestrus
8. Ovulation occurs in bitch during B
- a. Proestrus
 - b. Estrus
 - c. Metestrus
 - d. Diestrus
9. Ovulation occurs in cow A
- a. 12-16 hours after estrus
 - b. 20-22 hours after estrus
 - c. 12-16 hours before estrus
 - d. 20-22 hours before estrus
10. Ovulation occurs in She-buffalo A
- a. 18-24 hours after estrus
 - b. 18-24 hours before estrus
 - c. 30-40 hours after estrus
 - d. 30-40 hours before estrus
11. In which period of estrous cycle the vaginal bleeding is seen in bitch A
- a. Proestrus
 - b. Estrus
 - c. Diestrus
 - d. Metestrus
12. In which period of estrous cycle the vaginal bleeding is seen in cow B
- a. Proestrus
 - b. Metestrus
 - c. Estrus
 - d. Diestrus
13. The attraction of males by female bitch during estrus due to [A
- a. Pheromone & Methylhydroxybenzoate
 - b. FSH & LH release
 - c. Estrogen & Progesterone release
 - d. $\text{PGF}_2\alpha$ & PGI_2 release
14. Ovulation in bitches occurs about A
- a. 40-50 hours after LH surge
 - b. 20-30 hours after LH surge
 - c. 20-30 hours before LH surge
 - d. 80-100 hours after LH surge
15. Cornification of Vaginal Epithelium is increased due to A
- a. Rise in the Oestrogen hormone
 - b. Rise in Progesterone hormone
 - c. Rise in FSH
 - d. Rise in Prolactin hormone

16. Dominant cell types during estrus period in bitch D
- Neutrophils cells
 - Erythrocytes cells
 - Basal Cells
 - Keratinised Cells
17. Ideal breeding time in bitch A
- Twice between 0 and 4 day of estrus
 - Twice between 0 and 4 day of early Proestrus
 - Twice between 0 and 4 day of Diestrus
 - Twice between 0 and 4 day of Late proestrus
18. The nucleus of superficial cells in bitch during estrus is A
- Small pyknotic
 - Large nucleus
 - Absent Nucleus
 - Two nucleus
19. The gestation length in bitch is A
- 56-68 days
 - 40-52 days
 - 60-72 days
 - 50-62 days
20. The normal pH of Dog semen is A
- 5.8-5.9
 - 7.2-7.9
 - 7.1-7.5
 - 6.6-6.8
21. The normal volume of semen in dog is D
- 1-2 ml
 - 0.5-1.5 ml
 - 5-10 ml
 - 3-4 ml
22. Average sperm concentration in Dog semen is C
- 800-1400 million/ml
 - 600-1200 million/ml
 - 200-400 million/ml
 - 2000-4000 million/ml
23. Average concentration in Ram semen is A
- 2000-4000 million/ml
 - 200-400 million/ml
 - 2500-4500 million/ml
 - 100-150 million/ml
24. Average sperm concentration in Buck semen is B
- 800-1400 million/ml

- b. 2500-4500 million/ml
 - c. 2000-4000 million/ml
 - d. 600-1200 million/ml
25. Total sperm length in buffalo bull is A
- a. 61.95 μ
 - b. 58.84 μ
 - c. 69.59 μ
 - d. 55.50 μ
26. Reaction time has co-relation with A
- a. Sex drive
 - b. Motility of sperm
 - c. Fertility of sperm
 - d. Concentration of sperm
27. Increase in the incidence of loose head is the morphological sign of B
- a. Testicular hypoplasia
 - b. Testicular Degeneration
 - c. Monorchidism
 - d. Cryptorchidism
28. The end product of Fructolysis is D
- a. Carbon dioxide
 - b. Water & Carbon dioxide
 - c. Citric acid
 - d. Lactic acid
29. Aspermia denotes A
- a. Non volume
 - b. Zero sperm
 - c. Decreased sperm
 - d. Increased sperm
30. Necrozoospermia denotes A
- a. All dead sperm
 - b. Increased Abnormal sperm
 - c. Decreased abnormal sperm
 - d. Increased normal sperm
31. Average velocity of buffalo sperm cell is A
- a. 1.65 mm/minute
 - b. 4.23 mm/minute
 - c. 0.50 mm/minute
 - d. 3.50 mm/minute
32. Highest concentration of Inositol is seen in semen of A
- a. Boar
 - b. Bull
 - c. Ram

- d. Stallion
- 33. Graafian follicle is discovered by B
 - a. Fallopius
 - b. Regnier deGraaf
 - c. Fallopius and Coiter
 - d. Van Leeuwen hock
- 34. Corpus Luteum is discovered by B
 - a. Van Leeuwen hock
 - b. Coiter
 - c. Regnier deGraaf
 - d. Spallanzani
- 35. Sometimes the antral follicle is referred as a A
 - a. Tertiary follicle
 - b. Secondary follicle
 - c. Primary follicle
 - d. Primordial follicle
- 36. Type of Uterus in Rabbit is A
 - a. Duplex
 - b. Bicornuate
 - c. Bipartite
 - d. Simplex
- 37. The inner surface of Cow cervix is having A
 - a. Circular mucosal folds
 - b. Longitudinal mucosal folds
 - c. Vertical mucosal folds
 - d. Horizontal Mucosal folds
- 38. The inner surface of Mare cervix is having B
 - a. Circular mucosal folds
 - b. Longitudinal mucosal folds
 - c. Vertical mucosal folds
 - d. Horizontal Mucosal folds
- 39. Only fertilized egg passes into uterus in case of C
 - a. Cow
 - b. She Buffalo
 - c. Mare
 - d. Ewe
- 40. The period of embryo in cow is B
 - a. 0-12 days of gestation
 - b. 12-45 days of gestation
 - c. 12-55 days of gestation
 - d. 11-35 days of gestation
- 41. Which period of gestation fremitus can be palpated C

- a. 12-35 days of gestation
 - b. 35-55 days of gestation
 - c. 80-120 days of gestation
 - d. 35-70 days of gestation
42. Regeneration of the endometrium is slower in D
- a. Discoidal placenta
 - b. Zonary placenta
 - c. Diffuse placenta
 - d. Cotyledonary placenta
43. The drug of choice in treatment of mummified fetus is D
- a. stilbesterol
 - b. Oxytocin
 - c. Epidosin
 - d. Lutalyse
44. After ovulation the granulosa cells differentiate into B
- a. Small luteal cells of CL
 - b. Large luteal cells of CL
 - c. Dead luteal cells of CL
 - d. Black luteal cells of CL
45. Endometrial oxytocin receptors are more in number during A
- a. Luteal phase of the cycle
 - b. Follicular phase of the cycle
 - c. Early follicular phase of the cycle
 - d. Antral follicular phase of the cycle
46. Which type of Corpus luteal cells persists throughout the pregnancy in She buffalo B
- a. Large Luteal cell
 - b. Small Luteal cell
 - c. No cells persist
 - d. Granulosa cells
47. Size of the large luteal cell is A
- a. 25-35 μm
 - b. 15-20 μm
 - c. 10-15 μm
 - d. 50-70 μm
48. Hypothalamic surge center present in C
- a. Pre-pubertal male animal
 - b. Post-pubertal male animal
 - c. Post-pubertal female animal
 - d. Post-pubertal female and male animal
49. Hypothalamic surge center absent in A
- a. Male animal
 - b. Female animal

- c. Pre-pubertal female animal
 - d. Post-pubertal female animal
50. Protein defeminize the hypothalamic surge center in prenatal male A
- a. Alpha-fetoprotein
 - b. Desendin protein
 - c. Relaxin
 - d. Prolactin
51. Pseudopregnancy incidence is more in D
- a. Cow
 - b. Doe
 - c. Ewe
 - d. Bitch
52. Expulsion of dead fetus after full gestation is B
- a. Abortion
 - b. Still birth
 - c. Premature birth
 - d. Over mature birth
53. Free martins females having B
- a. Small clitoris
 - b. Large clitoris
 - c. No clitoris
 - d. Large urethra
54. Maternal recognition of pregnancy in mare at C
- a. 15-18 days
 - b. 10-12 days
 - c. 12-14 days
 - d. 18-20 days
55. Maternal recognition of pregnancy in Sow at B
- a. 15-18 days
 - b. 11-12 days
 - c. 7-9 days
 - d. 18-19 days
56. Pregnancy recognition factor in case of cow is C
- a. Estradiol
 - b. Estrogens
 - c. b IFN t
 - d. O IFN t
57. Pregnancy recognition factor in sow is D
- a. b IFN t
 - b. O IFN t
 - c. Proteins
 - d. Estradiol

58. In which species $\text{PGF}_2\alpha$ is rerouted into the uterine lumen at maternal recognition of pregnancy A
- Sow
 - Mare
 - She-Buffalo
 - Donkey
59. Drug of choice for treatment of luteal cyst in cow is D
- Estrogen Preparation
 - Progesterone Preparation
 - LH Preparation
 - $\text{PGF}_2\alpha$ Preparation
60. Highest Percentage embryo mortality occurs in between B
- 1-7 days of pregnancy
 - 10-30 days of pregnancy
 - 35-40 days of pregnancy
 - 40-275 days of pregnancy
61. Average incidence of infertility in organized cattle farm is A
- 5-10 percent
 - 1-2 percent
 - 10-15 percent
 - 15-20 percent
62. Lactational anoestrus is due to A
- Increased level of Prolactin
 - Increased level of Oestrogen
 - Increased level of GnRH
 - Increased level of FSH
63. Post partum Anoestrous incidences is more in B
- Cow
 - She-buffalo
 - Mare
 - Ewe
64. Cuboni test is highly accurate in mare when applied in between D
- 40-120 days of gestation
 - 17-21 days of gestation
 - 120-270 days of gestation
 - 150-300 days of gestation
65. Radiographic confirmation of pregnancy in bitch is possible as early as D
- 20-25 days of gestation
 - 55-60 days of gestation
 - 42-45 days of gestation
 - 35-38 days of gestation
66. First mating in a young She-camel is usually done at C
- One year age
 - Two year age

- c. Three year age
 - d. Four year age
67. Percentage of ovulation from right ovary in cattle is D
- a. 40 Percent
 - b. 80 Percent
 - c. 70 Percent
 - d. 60 Percent
68. Follicular fluid is rich in B
- a. Progesterone
 - b. Estrogen
 - c. Relaxin
 - d. Inhibin
69. Some time gestation period of male calves is A
- a. 1-3 days longer
 - b. 5-10 days longer
 - c. 10-12 days longer
 - d. 8-10 days longer
70. Haematic form of mummification seen in A
- a. Cattle
 - b. Horse
 - c. Dog
 - d. Cat
71. Embryo germ layer develops from cells of D
- a. Trophoblast
 - b. Trophectoderm
 - c. Blastocoele
 - d. Embryoblast
72. Chorion develops from cells of A
- a. Trophoblast
 - b. Inner cells
 - c. Embryoblast
 - d. Blasocoele
73. The elongation phase of the Blastocyst in sheep at A
- a. 11 days post estrus
 - b. 8 days post estrus
 - c. 13 days post estrus
 - d. 15 days post estrus
74. The elongation phase of blasocyst in cow at C
- a. 11 days post estrus
 - b. 8 days post estrus
 - c. 13 days post estrus
 - d. 15 days post estrus

75. Hatching of Blasocyst from zona pellucida in cow A
- Between 7-8 days
 - Between 4-5 days
 - Between 10-12 days
 - Between 9-10 days
76. Enzyme responsible for softening of zona matrix A
- Trypsin and plasmin
 - Acid and alkali phosphatase
 - Hyaluranidase
 - Acrosin
77. Elongation of conceptus will not take place in D
- Sheep
 - Goat
 - Pig
 - Horse
78. Which are the specialized cells seen at the formation of endometrial cups in the mare A
- Chorionic girdle cells
 - Amnionic girdle cells
 - Endometrial epithelial cells
 - Multinucleate cells
79. Which types of cells factors protects the immunologic rejection of conceptus in ruminants B
- Endometrial cup cells
 - Syncytium or Multinucleate cells
 - Chorionic girdle cells
 - Endometrial cells
80. Follicles less than 4 mm diameter in cow is A
- Independent of gonadotrophin support
 - Dependent of gonadotrophin support
 - Dependent of Oestrogen support
 - Dependent of Progesterone support
81. How many follicular waves are commonly seen in *Bos indicus* C
- Single wave
 - Two waves
 - Three waves
 - Four waves
82. How many follicular waves are commonly seen in *Bos taurus* B
- Single wave
 - Two waves
 - Three waves
 - Four waves
83. Ovulatory follicular waves is always A

- a. Shorter duration
 - b. Longer duration
 - c. Equal duration
 - d. Too longer duration
84. Approximately Germ cells in prenatal fetal ovaries in cattle is D
- a. 100000 nos.
 - b. 150000 nos.
 - c. 200000 nos.
 - d. 275000 nos.
85. Which hormone is responsible for apoptosis of ovarian follicular cells B
- a. Oestrogen
 - b. FSH
 - c. LH
 - d. Prolactin
86. Approximately how many follicles are mature and ovulate during life time of a cow A
- a. 75-100 nos.
 - b. 500- 600 nos.
 - c. 600-700 nos.
 - d. 700-1000 nos.
87. The testicular descend occurs by mid fetal life in C
- a. Dog
 - b. Pig
 - c. Cattle
 - d. Horse
88. When testicular descent occurs in stallion C
- a. mid gestation
 - b. Late Quarter of gestation
 - c. Just before and after birth
 - d. Early part of gestation
89. Testicular descent occurs at last quarter of fetal life in A
- a. Boar
 - b. Ram
 - c. Buck
 - d. Stallion
90. Which factor controls the growth of gubernaculum during embryogenesis A
- a. Descendin
 - b. Ascendin
 - c. Gonadotropins
 - d. Leyding cells
91. Blood entering into testis is having C
- a. Increased pulse

- b. Decreased pulse
 - c. Pulseless
 - d. Very high pulse
92. Which type of cells help movement of spermatozoa into the rete tubules A
- a. Peritubular cells
 - b. Germ cells
 - c. Sertoli cells
 - d. Leyding cells
93. Spermatogenesis takes place predominantly in which part of seminiferous tubules B
- a. Straight portion
 - b. Convulated portion
 - c. Rete tubules
 - d. Peritubular
94. Transferrin protein is secreted by B
- a. Germ cells of testis
 - b. Sertoli cells of testis
 - c. Leyding cells of testis
 - d. Interstitial cells of testis
95. Which are the barrier prevent immunological destruction of spermatozoa C
- a. Peritesticular cells
 - b. Sertoli cells tight junction
 - c. Peritesticular & Sertoli cell junction
 - d. only Sertoli cell junction
96. Coxitis is seen most commonly in A
- a. Dogs
 - b. Bull
 - c. Stallion
 - d. Buck
97. In ram, Balanoposthitis is also known as A
- a. Pizzle rot
 - b. Phallocampus
 - c. Rain bow
 - d. Crampiness
98. Fibropapilloma generally seen in A
- a. Bulls
 - b. Stallion
 - c. Buck
 - d. Dog
99. Shape of sperm head in cock is A
- a. Elongated Cylindrical
 - b. Elongated with hook
 - c. Elongated with spicule
 - d. Oval with rounded

100. In testicular degeneration semen picture is A
- Teratozoospermia
 - Azoospermia
 - Oligozoospermia
 - Normozoospermia
101. Drug of choice for treatment of Follicular cyst in cow is C
- Estrogen Preparation
 - Progesterone Preparation
 - LH Preparation
 - PGF₂ α Preparation
102. Time required for expulsion of fetal membranes in mare A
- $\frac{1}{2}$ to 2 hours
 - 4-6 hours
 - 6-8 hours
 - 8-10 hours
103. Ovaries are derived from A
- Germinal ridges
 - Mullerian ducts
 - Urogenital sinus
 - Vestibular folds
104. Uterus and oviducts are derived from B
- Germinal ridges
 - Mullerian ducts
 - Urogenital sinus
 - Vestibular folds
105. Non Projection of corpus luteum above the surface of ovary in A
- Mare
 - Cow
 - Buffalo
 - Ewe
106. Most common form of dystocia in mare is A
- Wry neck
 - Monsters
 - Twins
 - Schistosoma reflexus
107. Dilatation of cervix is easier in case of A
- Mare
 - Cow
 - Buffalo
 - Ewe
108. Half life of Folligon is D

- a. ½ hour
 - b. 1-3 hours
 - c. 6-8 hours
 - d. More than 55 hours
109. Dog sitting position is the complication of A
- a. Anterior presentation
 - b. Posterior presentation
 - c. Oblique presentation
 - d. Transverse presentation
110. The percentage of fetal calf serum used in flushing media A
- a. 1-2 Percent
 - b. 3-4 Percent
 - c. 4-5 Percent
 - d. 2-3 Percent
111. The percentage of fetal calf serum used in holding media B
- a. 1-2 Percent
 - b. b.10-20 Percent
 - c. 4-5 Percent
 - d. 2-3 Percent
112. Injection of Prostaglandin in synchronized recipient to that of donor is B
- a. 1 day later than donor
 - b. 1day earlier than donor
 - c. Same day
 - d. Three days early
113. Superovulatory hormones are injected during C
- a. Early follicular phase
 - b. Late Follicular phase
 - c. Mid luteal phase
 - d. Late luteal phase
114. Fetal heartbeat can be detected by C
- a. A mode ultrasound
 - b. B mode ultrasound
 - c. B mode ultrasound and Doppler analyzer
 - d. Doppler analyzer
115. Polyspermia can be prevented in cattle by A
- a. Cortical reaction
 - b. First polar body
 - c. Previtelline space
 - d. Cumulus cells
116. Rosette Inhibition test for pregnancy diagnosis is used as early as A
- a. 6-24 hours after fertile mating
 - b. 24- 36 hours after fertile mating
 - c. 2-4 days after fertile mating

- d. 4-8 days after fertile mating
117. Dose of Prostaglandin used for early pregnancy diagnosis in cow C
- a. Luteolytic dose
 - b. Double luteolytic dose
 - c. Single non luteolytic dose
 - d. Triple Luteolytic dose
118. Calves produced from the cloning process is having B
- a. Smaller than normal calves
 - b. 20 % heavier than normal calves
 - c. 20 % lighter than normal calves
 - d. Both are equal
119. Average recovery of transferable embryos in cattle in each flush is D
- a. 1-2 embryo
 - b. 0.5 -1 embryo
 - c. 10 – 12 embryo
 - d. 3- 7 embryo
120. Average recovery of transferable embryos in Buffalo in each flush is A
- a. 1-2 embryo
 - b. 0.5 -1 embryo
 - c. 10 – 12 embryo
 - d. 3- 7 embryo
121. Repeat breeding due to delayed ovulation in cows can be treated with C
- a. Folligon
 - b. Lutalyse
 - c. Chorulon
 - d. Furea bolus
122. In a free martin, the chromosomal sex complex is B
- a. XXY
 - b. XX
 - c. XY
 - d. XYY
123. Early embryonic deaths may be due to the deficiency of A
- a. Progesterone
 - b. Estrogen
 - c. FSH
 - d. PGF₂ α
124. The test conducted to diagnose tubal patency is D
- a. Cubonic test
 - b. A-Z test
 - c. Mucin test
 - d. Rubin in sufflation test

125. Teratological defects will occur during B
- Period of Ovum
 - Period of Embryo
 - Period of Fetus
 - Period of Zygote
126. The following operation helps in reducing the size of the fetus C
- Episiotomy
 - Traction
 - Fetotomy
 - Caesarian
127. Ventral deviation of the head is seen in C
- Breech presentation
 - Transverse presentation
 - Vertex presentation
 - dog sitting posture
128. The ideal concentration of glycerol in diluents for the preservation of buffalo bull semen B
- 2 %
 - 6%
 - 12 %
 - 18 %
129. Androgen binding protein is secreted by A
- Sertoli cells
 - Leydig cells
 - Myoid cells
 - Rete testis
130. Seminal plasma is slightly alkaline in B
- Bull and Ram
 - Bull and Boar
 - Ram and stallion
 - Boar and Stallion
131. Seminal plasma is slightly acidic in B
- Boar and Stallion
 - Bull and Ram
 - Bull and Boar
 - Ram and Stallion
132. The highest concentration of inositol is found in the semen of B
- Bull
 - Boar
 - Ram
 - Dog
133. Release of spermatozoa from subtesticular cells is called as A
- Spermiation

- b. Spermatogenesis
 - c. Spermatocytogenesis
 - d. Spermatogenic wave
134. The inner cell mass of blastocyst give rise to three germ layers of the embryo (Ectoderm, Mesoderm and endoderm) during the process called as A
- a. Gastrulation
 - b. Compaction
 - c. Polarization
 - d. Syngamy
135. Hatching period of Blastocyst occurs in case of cow B
- a. 0-4 days
 - b. 4-8 days
 - c. 8-12 days
 - d. 12-16 days
136. Migration of embryonic vesicle back and forth between uterine horn is essential in mare to inhibit B
- a. Polyspermy
 - b. Luteolysis
 - c. Capacitation of other sperms
 - d. Folliculogenesis
137. Which glycoprotein is abundant during the non receptive phase of pregnancy and serves as an antiadhesion factor is A
- a. Muc- I
 - b. Relaxin
 - c. PGF₂ α
 - d. Oestrogen
138. Which type of cells arising from the trophoblast at the time of placental attachment A
- a. Uninucleated cells
 - b. Binucleated cells
 - c. Multinucleated cells
 - d. Nucleus less cells
139. Binucleate cells first appears in cow at C
- a. Day 10 of gestation
 - b. Day 12 of gestation
 - c. Day 17 of gestation
 - d. Day 21 of gestation
140. Placental attachment occurs in mare on D
- a. Day 10-15 of gestation
 - b. Day 16-21 of gestation
 - c. Day 24-41 of gestation
 - d. Day 51-90 of gestation
141. Ferguson's reflex initiates release of which hormone at parturition in cow B

- a. Estrogen
 - b. Oxytocin
 - c. Prostaglandin
 - d. Relaxin
142. Post coital pyometra is often associated with C
- a. Brucellosis
 - b. Vibriosis
 - c. Trichomoniasis
 - d. Tuberculosis
143. Growth of the mammary gland duct system is under the influence of A
- a. Estrogen
 - b. Progesterone
 - c. Prolactin
 - d. Relaxin
144. Growth of the mammary gland alveoli is under the influence of C
- a. Prolactin
 - b. Estrogen
 - c. Progesterone
 - d. Prostaglandin
145. Exogenous Oxytocin has luteolytic action in D
- a. Bitch
 - b. Cow & Ewe
 - c. Mare & Sow
 - d. Cow & ewe
146. Which is the important hormone in contraction of shell glands & vagina to induce oviposition in birds and reptiles D
- a. oxytocin only
 - b. FSH & LH
 - c. Prolactin & Vasopressin
 - d. Vasotocin
147. One primary spermatocyte produces A
- a. 4 spermatids
 - b. 64 spermatids
 - c. 1 spermatid
 - d. 16 spermatids
148. B-Spermatogonia is formed after which stage B
- a. A₄
 - b. Intermediate spermatogonia
 - c. Primary spermatocyte
 - d. secondary spermatocyte
149. One spermatogonia produces how many sperms C
- a. 4
 - b. 1
 - c. 64

- d. 16
150. Predominant Ig in follicular fluid is C
a. IgA
b. IgM
c. IgG
d. IgE
151. Predominant Ig in cervical fluid is A
a. IgA
b. IgM
c. IgG
d. IgE
152. One spermatogonia produces how many spermatids C
a. 4
b. 1
c. 64
d. 16
153. In which species unfertilized ovum remains in oviduct for longer days B
a. Sow
b. Mare
c. Ewe & Doe
d. Bitch
154. Most of the developmental anomalies occur during A
a. Period of embryo
b. Period of ovum
c. period of fetus
d. During Birth
155. Endometrial cups are formed from A
a. Chorionic girdle(fetal origin)
b. maternal caruncles
c. Endometrium(maternal origin)
d. None of the above
156. Transformation of secondary spermatocytes to spermatids is called B
a. Spermatocytogenesis
b. Spermateliosis
c. Spermiogenesis
d. Spermeation
157. Centric type of nidation/implantation occurs in C
a. Rodents
b. Primates
c. Ruminants
d. None of the above
158. Chemical structure of GnRH was determined by D

- a. Green & Harris
 - b. Cole & Heart
 - c. Gorski
 - d. Shalley & Guellemin
159. Which segment of sperm head plasma membrane attached to zona pellucida initially D
- a. Apical
 - b. Post-acrosomal
 - c. Principal
 - d. Equitorial
160. Hippomanes are usually found in C
- a. Yolk sac
 - b. Amniotic fluid
 - c. Allantoic fluid
 - d. All of these

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1. The common mode of infection with *Ancylostoma caninum* are
 - a. skin penetration
 - b. ingestion of intermediate host
 - c. transplacental
 - d. paratenic hosts.
2. The smallest tapeworm of dogs is
 - a. *Taenia taeniaeformis*
 - b. *Dipylidium caninum*
 - c. *Echinococcus granulos*
 - d. *Davainea proglottina*.
3. The larval stages of *Spirometra* are commonly known as
 - a. Cysticerci
 - b. Hydatid
 - c. Coenurus
 - d. Spargana
4. Ingestion of raw bulbs of water plants is the common mode of infection with
 - a. *Opisthorchis sinensis*
 - b. *Fasciola gigantica*
 - c. *Fasciolopsis buski*
 - d. *Taenia solium*
5. The cercariae of *Dicrocoelium dendriticum* clump together and are called as
 - a. Mesocercaria
 - b. Slime balls
 - c. Metacercaria

- d. *Cercaria pigmentata*
6. The tapeworm which passes gravid segments that are motile includes
- Taenia saginata*
 - Slime balls
 - Metacercaria
 - Diphyllobothrium latum*
7. Parthenogenesis is found to occur in the life cycle of
- Strongylus vulgaris*
 - Strongyloides*
 - Haemonchus*
 - Triodontophorus*
8. The amphistome species that has the bile ducts as site of predilection is
- Gastrothylax*
 - Fischoederius*
 - Cotylophoron*
 - Gigantocotyle*
9. Consumption of raw or improperly cooked fish can lead to infection with
- Fasciolopsis buski*
 - Paragonimus*
 - Diphyllobothrium latum*
 - Eurytrema pancreaticum*
10. The term used to denote shedding of gravid segments is known as
- Viviparous
 - Oviparous
 - Apolytic
 - Anapolytic
11. Trematode parasites are generally
- Round shaped
 - Square shaped
 - Hermaphrodite
 - All of them
12. The identity of cercaria of trematodes is based on
- Phasmids
 - Amphids
 - Flame cells
 - None of them
13. Furcocercous cercarial stage is found in
- Amphistomes
 - Fasciola
 - Echinostomes
 - Scistosomes
14. Slime balls are involved in the life cycle of

- a. D.dendriticum
- b. P.explanatum
- c. P.pellucidus
- d. M.benedeni

15. The head of a tapeworm is called as

- a Rostellum
- b Acetabulum
- c Scolex
- d. Proboscis

16. Snail as a intermediate host in life cycle is a characterstic feature of

- a) Trematode
- (b) Cestode
- (c) Nematode
- (d) None of them

17. Complete metamorphosis is observed in

- a) Ticks
- (b) Fleas
- (c)Lice
- (d) Bugs

18. The comonest infective stage in nematode life cycle

- a.).L1
- (b) L2
- (c) L3
- (d) L4

19. When a species is named after a person, the name ends in

- a) ii
- (b) um
- (c) is
- d) ensis

20. When a species is named after a place, the name ends in

- a) ensis
- (b) ii
- (c) um
- (d) is

21. Binomial nomenclature is used for

- a) Order
- (b) Family
- (c) Genus
- (d) species

22. Leaches belong to the phylum

- a) Arthropoda
- (b) Ciliata
- (c) Annelida

- (d) Platyhelminthes
23. The name of the family ends in
- Inae
 - ida
 - cidae
 - oidea
24. Haemoprotozoan parasites are commonly stained using
- Carmin stain
 - Trichrome stain
 - Giemsa's stain
 - none of them
25. An arthropod intermediate host is referred to as a
- Phoront
 - Vector
 - Transport host
 - Paratenic host
26. The type of immunity against haemoprotozoan parasites is
- Sterile immunity
 - Premunity
 - Innate immunity
 - Concomittant immunity
27. The name of the super family should always end with
- dae
 - nae
 - da
 - dea
28. The dorsoventrally flat endo parasites, hermaphrodite in nature which lack a body cavity are
- Acanthocephala
 - Nematodes
 - Cestodes
 - Tongue worms
29. A highly absorptive outer covering is present in
- Flukes
 - Roundworms
 - Tapeworms
 - Tongue worms
30. Unicellular organisms which have cilia and possess two types of nuclei belong to the phylum
- Sarcomastigophora
 - Apicomplexa
 - Ciliophora
 - Sporozoa
31. The parasites which have two different hosts involved in their lifecycle are called

- a) Heterogenetic
 - b) Monogenetic
 - c) Parthenogenetic
 - d) Digenetic
32. When a single larval stage of trematode gives rise to a large number of offspring's the process is referred to as
- a) Paedogenesis
 - b) Polyembryony
 - c) Binary fission
 - d) Sporogony
33. When a parasite begins to pass eggs it is known as the
- a) Prepatent period
 - b) Incubation period
 - c) Patent period
 - d) Latent phase
34. Ticks and mites belong to the Class
- a) Arthropoda
 - b) Arachnida
 - c) Pentastomida
 - d) Insecta
35. Metacercaria is the infective stage of all trematodes except
- a. Fasciolidae
 - b. Amphistomidae
 - c. Schistosomatidae
 - d. Echinostomatidae
36. Infective larva develops within the egg of
- a. Strongylus vulgaris
 - b. Ascaris suum
 - c. Haemonchus contortus
37. The gravid segments are apolytic in
- a. Taenia hydatigena
 - b. Dipylidium caninum
 - c. Diphylobothrium latum
 - d. Echinococcus granulosus
38. The bladder worm having a thin, transparent cyst wall containing numerous invaginated scolices
- a. Cysticercus
 - b. Coenurus
 - c. Hydatid
39. Hepatotracheal migration is seen in
- a. Pups infected before 2 to 3 months of age.
 - b. Pups infected through paratenic hosts
 - c. Pups infected trans colostrally

- d. only in adults
40. Cercaria of schistosomes remain infective in the environment for
- a. 5-8 hours
 - b. 1-week
 - c. 1 month
 - d. 1 year
41. Radial stage is absent in the life cycle of
- a. Schistosomes
 - b. Dicrocoelium
 - c. Both a & b
 - d. Only in Dicrocoelium
42. First stage nematode larva seen in fresh cattle dung is most likely to be
- a. *Haemonchus contortus*
 - b. *Dictyocaulus vivipara*
 - c. *Oesophagostomum radiatum*
 - d. *Gaigeria pachyscelis*
43. The metacestode that is not seen in sheep
- a. Hydatid
 - b. *Coenurus cerebralis*
 - c. *Cysticercus tenuicollis*
 - d. *Cysticercus cellulosae*
44. The trematode that is not seen in man
- a. *Schistosoma mansoni*
 - b. *Fasciolopsis buski*
 - c. *Paragonimus westermanii*
 - d. *Paramphistomum cervi*
45. The host which harbors the sexually mature parasites of some other definitive host
- a. Carrier host
 - b. Reservoir host
 - c. Intermediate host
 - d. Paratenic host
46. The name of the sub family ends with
- a. inae
 - b. ida
 - c. idae
 - d. oidea
47. In the accepted category of taxa, the family follows
- a. Phylum
 - b. Class
 - c. Order
 - d. Genus
48. The process of the larva coming out of the egg is called

- a. Hatching
 - b. Moulting
 - c. Shedding
 - d. Exsheathing
49. The parasite fully adapted for parasitic life and is not capable of independent existence.
- a. Periodic parasite
 - b. Temporary parasite
 - c. Obligatory parasite
 - d. Facultative parasite
50. The cercarial stages of Amphistomes
- a. Gymnocephalus
 - b. Echinostome
 - c. Furcocercous
 - d. Have eye spots.
51. Absorption of vitamin B12 by the host is impaired in infections with
- a. *Fasciola gigantica*
 - b. *Diphyllobothrium latum*
 - c. *Taenia solium*
 - d. *Dicrocoelium dendriticum*.
52. Slime balls of *Dicrocoelium* contain masses of
- a. *Cercaria pigmentata*
 - b. *Cercaria vitrina*
 - c. *Lophocercaria*
 - d. Rat king cercaria
53. The common mode of transmission of *Paragonimus westermani* is by ingestion of
- a. Ants
 - b. Grasshoppers
 - c. Dragon flies
 - d. Crabs and cray fish.
54. A good example of a motile apolytic zoonotic tapeworm is
- a. *Taenia solium*
 - b. *Taenia ovis*
 - c. *Taenia saginata*
 - d. *Echinococcus granulosus*.
55. Secondary hydatid cysts develop from
- a. Onchospheres
 - b. Adult tapeworms
 - c. Sterile cysts
 - d. Protoscolex
56. The largest poultry tapeworm is
- a. *Raillietena tetragona*
 - b. *R. echinobothrida*
 - c. *Davainea proglottina*
 - d. *R. cesticellus*

57. Hairlike worms with reduced corona radiata but well developed copulatory bursa
- Strongyles
 - Trichostrongyles
 - Oesophagostomum
 - Strongyloides
58. Lungworms which are referred to as Biohelminths
- Dictyocaulus
 - Paragonimus
 - Metastrongylus
 - Oesophagostomum
59. The process of inhibited or arrested development in nematodes is
- Diapause
 - Excystation
 - Hypobiosis
 - Histotropic phase
60. Tapeworms of man and domestic animals belong to the order
- Cestodaria
 - Eucestoda
 - Cyclophyllidea
 - Pseudophyllidea
61. Closed apical cell is observed in the wings of
- Musca
 - Stomoxys
 - Tabanus
 - Haematobia
62. The below tick is a ornate longirostrate tick
- Hyalomma
 - Haemaphysalis
 - Amblyomma
 - Rhipicephalus
63. The eggs of the mosquito which are deposited in rafts
- Culex
 - Anopheles
 - Aedes
 - Mansonia
64. Posterior spiracles are D shaped with central button and radiating slits
- Gastrophilus
 - Hypoderma
 - Musca
 - Oestrus
65. Arthropods with no antennae and four pairs of legs
- Arachnids

- b. Insects
 - c. Crustacea
 - d. Chilopods
66. Mites which have stumpy legs, worm like body and transversely striated abdomen
- a. Sarcoptes
 - b. Notoedres
 - c. Demodex
 - d. Cnemidocoptes
67. Fleas that possess both genal and pronotal combs
- a. Ctenocephalides
 - b. Echidnophaga
 - c. Xenopsylla
 - d. Pulex
68. The classical intermediate host of the dog tapeworm *Dipylidium caninum*
- a. *Heterodoxus spiniger*
 - b. *Linognathus setosus*
 - c. *Ctenocephalides canis*
 - d. *Hippobosca capensis*
69. The following is a pupiparous fly
- a. *Lucilia*
 - b. *Musca*
 - c. *Fannia*
 - d. *Hippobosca*
70. The genus of flies which are commonly known as flesh flies
- a. *Simulium*
 - b. *Calliphora*
 - c. *Chrysomyia*
 - d. *Sarcophaga*
71. Plumose antenna is characteristics of
- a. Male mosquitos
 - b. Female mosquitoes
 - c. Both male & female
 - d. Only in female
72. Sterile male technique was succesfully tried for the first time to control
- a. Mosquitoes
 - b. *Callitroga hominivorax*
 - c. *Chrysomiya bezziana*
 - d. *Musca domestica*
73. Permanent ectoparasites
- a. Ticks
 - b. Fleas
 - c. Bed bugs
 - d. Lice

74. The organisms do not undergo any type of development or multiplication in the insect vector
- Mechanical transmission
 - Cyclodevelopmental transmission
 - Cyclopropagative transmission
 - Propagative transmission
75. Myiasis of the head region is known as
- Face strike
 - Pause strike
 - Poll strike
 - Pizzle strike
76. Mouthparts adapted for piercing and sucking as well as lapping
- Musca
 - Tabanus
 - Stomoxys
 - Glossina
77. Posterior spiracles of larvae are 'D' shaped, peritreme is complete, button is present and "M" shaped winding slits
- Musca
 - Lucilia
 - Sarcophaga
 - Oestrus
78. Presence of Antennae, a pair of wings and three pairs of legs are characteristic of
- Insects
 - Crustaceans
 - Arachnids
 - Centipedes
79. The third segment of antenna has a spur and four annulations in
- Chrysops
 - Tabanus
 - Haematopota
 - Glossina
80. Opisthognathus type of mouth parts present in
- only in lice
 - only in flies
 - only in bugs
 - Both in lice & flies
81. The flies clusters around the horns of cattle
- Haematobia irritans
 - Musca vicina
 - Tabanus striatus
 - Simulium indicum
82. In the middle ear of dogs

- a. *Sarcoptes scabiei*
 - b. *Demodex canis*
 - c. *Otodectes cynotis*
 - d. *Notoedres cuniculi*
83. In the wing feathers of birds
- a. *Menopon gallinae*
 - b. *Lipeurus caponis*
 - c. *Goniocotes gallinae*
 - d. *Cuclotogaster heterographus*
84. Stomach of horses - larva of
- a. *Gasterophilus* spp.
 - b. *Oestrus ovis*
 - c. *Cobboldia* spp.
 - d. *Chrysomya* spp.
85. Foot louse of sheep
- a. *Damalinia ovis*
 - b. *Melophagus ovinus*
 - c. *Linognathus pedalis*
 - d. *Sarcoptes ovis*
86. The example for facultative myiasis producer is
- a. *Musca domestica*
 - b. *Chrysomya bezziana*
 - c. *Lucilia cuprina*
 - d. *Oestrus ovis*
87. Stink glands are present in
- a. Fleas
 - b. Bugs
 - c. Lice
 - d. Ticks
88. The 4th longitudinal vein runs straight in
- a. *Musca*
 - b. *Stomoxys*
 - c. *Fania*
 - d. *Glossina*
89. This fly is capable of invading intact muscle and fresh wounds
- a. *Sarcophaga dux*
 - b. *Callitroga hominivorax*
 - c. *Chrysomya bezziana*
 - d. *Musca domestica*
90. The 1st record of arthropod transmitting a protozoa was by
- a. Francisco Redi
 - b. Ronald Ross
 - c. Smith and Kilbourne

d. Patrik Manson

91. Fleas are:

- a. Permanent
- b. Obligate temporary
- c. Facultative
- d. Casual ecto-parasites.

92. Biting flies with bare antennae belong to the family

- a. Culicidae
- b. Ceratopogonidae
- c. Simuliidae
- d. Psychodidae.

93. Adult flies with a ptilinal suture and with wings wherein the third longitudinal vein is not forked belong to

- a. Exopterygota
- b. Cyclorrhapha
- c. Orthorrhapha
- d. Pupipara.

94. *Trypanosoma cruzi* is transmitted by

- a. *Cimex hemipterus*
- b. *Trichodectes canis*
- c. *Triatoma infestans*
- d. *Melophagus ovinus*.

95. Arista are present on the antennae of flies of

- a. Nematocera
- b. Brachycera
- c. Cyclorrhapha
- d. Diptera.

96. The sensillum or pygidium is present on the ninth segment of spp. of the order

- a. Hemiptera
- b. Diptera
- c. Phthiraptera
- d. Siphonoptera.

97. Smith and Kilbourne demonstrated the transmission and life cycle of

- a. *Plasmodium vivax*
- b. *Trypanosoma evansi*
- c. *Babesia bigemina*
- d. *Theileria annulata*.

98. Mites from the skin scrapings can be directly mounted in

- a. Hoyer's medium
- b. DPX
- c. Methanaol

- d. KOH
99. Follicular mites should be collected from
- Deep skin scraping
 - Superficial skin scraping
100. Light trap is used to collect
- Crawling insects
 - Flying insects
101. To clear insect specimens we use
- 10% Potassium hydroxide
 - 10% Sodium chloride
102. To mount dipteran flies the following is advocated
- Dry mounting
 - Wet mounting
103. The following groups of arthropods are highly host specific
- Fleas
 - Bugs
 - Lice
 - Mosquitoes
104. Relationship of a louse to its host is:
- Permanent
 - Obligate temporary
 - Facultative
 - Casual ecto-parasites.
105. The Non parasitic adult soft ticks belong to the genus
- Argus
 - Ornithodoros
 - Otobius
 - Rhipicephalus
106. The example of one host tick is
- Rhipicephalus
 - Boophilus
 - Haemaphysalis
 - Hyalomma
107. Both scales and spines are present in
- Chorioptes
 - Psoroptes
 - Sarcoptes
 - Demodex
108. The following prefers to breed mainly in horse mature
- Culex spp.
 - Anopheles spp.

- c. *Stomoxys* spp.
 - d. *Musca* spp.
109. Licked beef condition is seen in the infection of
- a. *Oestrus ovis*
 - b. *Gastrophilus intestinalis*
 - c. *Hypoderma bovis*
 - d. *Simulium ornatum*
110. Body louse of poultry is
- a. *Menopon gallinae*
 - b. *Menacanthus stramineus*
 - c. *Lipeurus caponis*
 - d. *Cuclutogaster heterographus*
111. The stage of parasite found in vertebrate hosts in trypanosomes
- (a) Amastigote
 - (b) Epimastigote
 - (c) Trypomastigote
 - (d) Promastigote
112. The largest species of *Babesia* in animals
- (a) *Babesia equi*
 - (b) *Babesia bigemina*
 - (c) *Babesia canis*
 - (d) *Babesia motasi*
113. Transverse binary fission is the mode of multiplication in
- (a) *Amoeba*
 - (b) Ciliates
 - (c) Haemoprotozoa
 - (d) *Giardia*
114. The enteroepithelial cycle in *Toxoplasma gondii* occurs in
- (a) Felines
 - (b) Canines
 - (c) Nonfelines
 - (d) Herbivores
115. Cysts of *Entamoeba histolytica* contain
- (a) Four nuclei
 - (b) Eight nuclei
 - (c) Single nucleus
 - (d) No nucleus
116. Transovarian transmission is commonly noticed in
- (a) *Theileria*
 - (b) *Babesia*
 - (c) *Plasmodium*
 - (d) *Trypanosoma*

117. Winter coccidiosis in cattle is attributed to
- (a) *Eimeria bovis*
 - (b) *E. zuernii*
 - (c) *E. cylindrical*
 - (d) *E. ellipsoidalis*
118. The classical vector of bovine tropical theileriosis
- (a) *Haemaphysalis spinigera*
 - (b) *Rhipicephalus sanguineus*
 - (c) *Hyalomma anatolicum anatolicum*
 - (d) *Boophilus microplus*
119. The drug of choice for theileriosis is
- (a) Buparvaquone
 - (b) Quinpyramine
 - (c) Berenil
 - (d) Trypan blue
120. Steatorrhoea is a common clinical manifestation in
- (a) Amoebiasis
 - (b) Coccidiosis
 - (c) Toxoplasmosis
 - (d) Giardiasis
121. Unicellular organisms which have cilia and possess two types of nuclei belong to the phylum
- a) Sarcomastigophora
 - b) Apicomplexa
 - c) Ciliophora
 - d) Sporozoa
122. Cerebral form of babesiosis is more common in the infection due to
- a. *Babesia bigemina*
 - b. *B. bovis*
 - c. *B. Divergens*
 - d. *B. equi*
123. The causative agent of Dum dum fever is
- a. *Leishmania donovani*
 - b. *L. tropica*
 - c. *Trypanosoma equiperdum*
 - d. None of the above.
124. Sporogony in *Babesia bigemina* takes place in
- a. Vector
 - b. Host RBCs
 - c. Lymph nodes
 - d. Environment
125. In Toxoplasmosis abortions are more likely to occur in

- a. Cattle
 - b. Sheep
 - c. Horse
 - d. Cat.
126. The cause of Tropical Theileriosis is
- a. *Theileria parva*
 - b. *T. annulata*
 - c. *T. orientalis*
 - d. *T. lawrenci*
127. Three to seven week old age group of birds are most susceptible to
- a. *Eimeria necatrix*
 - b. *E. Maxima*
 - c. *E. tenella*
 - d. *E. acervullina*
128. *Cryptosporidium* develops in the following location in the host cell
- a. Cytoplasm
 - b. Nucleus
 - c. Intracellular extracytoplasmic
 - d. None.
129. The form found in the cyclical vector in case of trypanosomes is
- a. Amastigote
 - b. Promastigote
 - c. Trypamastigote
 - d. Epimastigote.
130. The causative agent of Tibarsa in camels is
- a. *Trypanosoma evansi*
 - b. *T. brucei*
 - c. *T. vivax*
 - d. *T. cruzi*
131. The life cycle of *Babesia bigemina* was discovered by
- a. Ronald Ross
 - b. Babes
 - c. Smith & Kilbourne
 - d. Antony Van Leewenhoek
132. *Trypanosoma* spp. found in intracellular location is
- a. *Trypanosoma evansi*
 - b. *T. cruzi*
 - c. *T. Equiperdum*
 - d. *T. brucei*
133. Formal gel/ Henry's test is used to diagnose surra in
- a. Bovines
 - b. Equines
 - c. Camels

- d. Canines
134. The part of the intestine affected by *Eimeria brunetti* is
- a. Rectum
 - b. Caecum
 - c. Anterior part of small intestine
 - d. Middle of small intestine
135. The gamonts of *Hepatozoon canis* are found in
- a. Erythrocytes
 - b. Lymphocytes
 - c. Neutrophils
 - d. Macrophages
136. The vector for *Trypanosoma cruzi*
- a. Mosquitoes
 - b. Fleas
 - c. Reduviid bugs
 - d. Lice
137. *Histomonas meliagredis* is transmitted by the eggs of
- a. *Ascaridia galli*
 - b. *Heterakis gallinarum*
 - c. *Syngamus trachea*
 - d. *Subulura brumpti*
138. Inverse age resistance is observed in infection of
- a. *Theileria annulata*
 - b. *Trypanosoma evansi*
 - c. *Babesia bigemina*
 - d. *Trichomonas foetus*
139. Apical complex is well formed in this stage
- a. Merozoite
 - b. Schizont
 - c. Gametocyte
 - d. Oocyst.
140. The pathogenic trypanosome in India was discovered by
- a. Bruce
 - b. Dutton
 - c. Evans
 - d. Ronald Ross
141. The second generation of merozoites of *Plasmodium relictum* is
- a. Merozoites
 - b. Schizonts
 - c. Metacryptozoites
 - d. Cryptozoites.
142. The stage of *Leishmania* occur in the macrophages of vertebrates

- a. Amastigote
 - b. Trypomastigote
 - c. Sphearomastigote
 - d. None of them.
143. The causative agent of Nagana in cattle is
- a. *T. evansi*
 - b. *T. brucei*
 - c. *T. gambiense*
 - d. *T. vivax*.
144. The enzyme helps in the penetration of epithelial cells in *B. coli* infection
- a. Hyaluronidase
 - b. Chymotrypsin
 - c. Haemolysin
 - d. None
145. Jones test is used to diagnose
- a. Amoebiasis
 - b. Leshmaniasis
 - c. Mal-de-caderas
 - d. None of them
146. *Anaplasma marginale* belongs to order
- a. Kinetoplastorida
 - b. Eucoddidiorida
 - c. Rickettsiaceae
 - d. None of them.
147. Indian Kala azar is dependent on
- a. Canine infection
 - b. Feline infection
 - c. Porcine infection
 - d. None of them.
148. The causative agent of oriental sore -
- a. *L. donavani*
 - b. *L. brasiliensis*
 - c. *T. foetus*
 - d. None of them.
149. Mature cyst of *Giardia lamblia* contains
- a. No nuclei
 - b. Two to four nuclei
 - c. Four nuclei
 - d. Eight nuclei
150. The person who discovered the life cycle of human malaria organism is
- a. Laveran
 - b. Ronald Ross

- c. Grassi
d. None of them

“Key”

Sl.No	Answer	Sl.No	Answer	Sl.No	Answer	Sl.No	Answer	Sl.No	Answer
1.	a	31	d	61	a	91	b	121	c
2.	c	32	a	62	c	92	b	122	b
3.	d	33	a	63	a	93	b	123	a
4.	c	34	b	64	d	94	c	124	a
5.	b	35	c	65	a	95	b	125	b
6.	d	36	b	66	c	96	d	126	b
7.	b	37	c	67	a	97	c	127	c
8.	d	38	b	68	c	98	a	128	c
9.	c	39	a	69	d	99	a	129	c
10.	c	40	a	70	d	100	b	130	a
11.	c	41	c	71	a	101	a	131	c
12.	c	42	b	72	b	102	a	132	b
13.	d	43	d	73	d	103	c	133	c
14.	a	44	d	74	a	104	a	134	a
15.	c	45	b	75	c	105	–	135	c
16.	a	46	a	76	b	106	b	136	c
17.	b	47	d	77	a	107	c	137	b
18.	c	48	a	78	a	108	c	138	c
19.	a	49	c	79	b	109	c	139	a
20.	a	50	d	80	c	110	a	140	c
21.	d	51	b	81	a	111	c	141	c
22.	c	52	b	82	c	112	b	142	a
23.	c	53	d	83	b	113	b	143	b
24.	c	54	d	84	a	114	a	144	a

25.	b	55	d	85	c	115	a	145	c
26.	b	56	a	86	c	116	b	146	c
27.	d	57	b	87	b	117	b	147	a
28.	c	58	a	88	b	118	c	148	d
29.	c	59	c	89	a	119	a	149	c
30.	c	60	c	90	c	120	d	150	d

ICAR- JRF Model Question paper I– VETERINARY SCIENCE
Dr NAGARAJA. L
Assistant Professor, Department of Veterinary Medicine

1. Lemberts pattern is not used for sutured
 - a) Uterus
 - b) Urinary Bladder
 - c) Oesophagus
 - d) Rumens

2. The smallest virus
 - a) Fowlpox
 - b) FMD
 - c) Ranikhet Disease
 - d) Avian Leukosis

3. Atropine :
 - a. Reduces metabolic rate
 - b. Reduces salivary, gastric and bronchial secretion
 - c. Reduces body temperature
 - d. Decrease intestinal motility

4. The larva that causes VLM
 - a) *Toxocara canis*
 - b) *Ascaris suum*
 - c) *Ancylostoma caninum*
 - d) *Dirofilaria immitis*

5. The microchromosomes are seen in
 - a) Cattle
 - b) Horse

- c) Poultry
 - d) Dog
6. Othaematoma is the haematoma involving
- a) Eye and Ear
 - b) Ear
 - c) Eye
 - d) None
7. Punched ulcers in abomassum is caused by
- a) *Babesia bigemina*
 - b) *Theileria annulata*
 - c) *Anaplasma marginale*
 - d) *Babesia bovis*
8. Death of animal suffering from rabies occurs due to
- a) Neuritis
 - b) Gastritis
 - c) Asphyxia
 - d) Paralysis
9. Cattle genome is made up of how many organic bases
- a) 2.9-3.1 trillion
 - b) 2.9-3.1 billion
 - c) 2.9-3.1 million
 - d) 2.9-3.1 lakh
10. Brooder pneumonia is caused by
- a) *Aspergillus flavus*
 - b) *Aspergillus ochoreceal*
 - c) *Aspergillus parasiticus*
 - d) *Aspergillus fumigates*
11. Paralysis of hind quarter is termed as
- a) Hemiplegia
 - b) Diplegia
 - c) Quadriplegia
 - d) Paraplegia
12. Teat surgery is more successful during which stage
- a) Lactating Stage
 - b) Dry Stage
 - c) Post Pubertal Stage
 - d) None
13. Pipe stem liver condition is seen in which of the following infection
- a) *Fasciola hepatica*
 - b) *Moneizia expansa*
 - c) *Dicrocoelium dentriticum*
 - d) None

14. The diabetes insipidus develops due to deficiency of
- ADH
 - Glucagon
 - Insulin
 - Aldosterone
15. An important source of biofuel is (Ethanol)
- Jowar
 - Oat
 - Sugarcane
 - Rice
16. Main immunoglobulin protecting mucosal surface is
- Ig M
 - Ig A
 - Ig G
 - All
17. Surgical removal of stones from the urinary bladder is known as
- Nephrectomy
 - Cystotomy
 - Penectomy
 - Nephrotomy
18. The reference test for diagnosis of rabies
- FAT
 - AGPT
 - Agglutination
 - ELISA
19. Toxic principle present in cotton seed is
- Sinigrin
 - Gossypol
 - Tannin
 - Mimosin
20. Microglia cells are present in
- Blood
 - Bone Marrow
 - Pancreas
 - Brain
21. Suturing of the uterus after the Caesarean section starts from
- Ovarian end
 - Cervical end
 - Middle of the uterus
 - Either of end
22. Anaesthesia is produced when the blood concentration of chloroform reaches to level of
- 0.035%
 - 0.35%

- c) 0.053%
 - d) 1.035%
23. Surgical operation for providing drainage from middle ear is known as
- a) Zepps Operation
 - b) Hyovertebrotomy
 - c) Ventriculectomy
 - d) Bulla osteotomy
24. T lymphocytes get maturity in organ
- a) Liver
 - b) Thymus
 - c) Spleen
 - d) Bursa
25. Antibacterial drug associated with nephrotoxicity is
- a) Tetracycline
 - b) Chloramphenicol
 - c) Streptomycin
 - d) Levofloxacin
26. Kohler and Muhlstein are known for the achievement in
- a) Hybridoma
 - b) Nucleotide sequencing
 - c) Viral Culture
 - d) Prion discovery
27. Bronze discoloration of liver is characteristic feature of
- a) Pullorum Disease
 - b) Fowl Cholera
 - c) Fowl Typhoid
 - d) Spirochaetosis
28. Double stranded RNA is found in
- a) Retro Virus
 - b) Reo Virus
 - c) Pox Virus
 - d) Parvo Virus
29. The total dry matter requirement of cow
- a) 3% of body wt
 - b) 3% of metabolic body wt
 - c) 5% of body wt
 - d) 1% of body wt
30. Raw egg feeding in dog may produce deficiency of
- a) Biotin
 - b) Cholin
 - c) Niacin
 - d) Pantothenic acid

31. Catgut is prepared from the intestine of
- Rabbit
 - Sheep
 - Pig
 - Cat
32. Sodium calcium EDTA is used as antidote in poisoning of
- Arsenic
 - Mercury
 - Lead
 - Copper
33. The common infectious disease affecting snake
- Brucellosis
 - Pasteurellosis
 - Salmonellosis
 - Tuberculosis
34. WTO is related with
- Environment
 - Biodiversity
 - International tourism
 - International trade
35. Nervous sign in ketosis is due to
- Hypocalcemia
 - Hypoproteinemia
 - Hypoglycemia
 - Hypophosphatemia
36. Amputation of horn in goats can be done by blocking of
- Cornual nerve
 - Infraorbital
 - Cornual and Infraorbital
 - None
37. The range of pH of rumen liquor
- 2-3
 - 5-7
 - 7-8
 - 3-5
38. Highly toxic poison has oral LD₅₀ value of
- <1 mg/kg
 - 1-50 mg/kg
 - 50-100 mg/kg
 - 1-50 mg/kg
39. The molecules is an endogenous antigen
- MHC Type I
 - MHC Type II

- c. MHC Type III
 - d. MHC Type E
40. Thin membranous partition between lateral ventricles of brain
- a. Tapetum lucidum
 - b. Septum lucidum
 - c. Intradorsal septum
 - d. Inter ventricular septum
41. Whales and dolphins breathe through
- a. Gills
 - b. Spiracles
 - c. Body surface
 - d. Lungs
42. The following characteristic palpable through the rectal examination for the pregnancy diagnosis in 35 days in cattle
- a. Asymmetry of uterine horn
 - b. CL on ovary
 - c. Slipping of foetal membrane
 - d. All of above
43. To relieve the right side uterine torsion, animal should be cast in
- a. Left side
 - b. Right side
 - c. Dorsal recumbency
 - d. Sternal recumbency
44. The ligament surgically cut for correction of subluxation of patella in bovine
- a. Dorsal
 - b. Ventral
 - c. Middle
 - d. Medial
45. Dilated pupils and fish eye appearance is observed in which stage of anaesthesia
- a. Stage 3
 - b. Stage 1
 - c. Stage 2
 - d. Stage 4
46. Match the following
- | | | |
|---------------------------------|-------|------------------------------|
| A. Homosexual behaviour | ----- | 1. Cat |
| B. Frequent urination in heat | ----- | 2. Buffalo |
| C. I.V.R.I Crystoscope | ----- | 3. Early Embryonic Mortality |
| D. Irregular long estrous cycle | ----- | 4. White Side Test |
| E. Endometritis | ----- | 5. Cattle |
| F. Rage Reaction | ----- | 6. Fern Pattern |
- a) 2, 5, 6, 1, 3, 4
 - b) 5, 2, 4, 3, 6, 1
 - c) 5, 1, 4, 2, 6, 3

d) 5, 2, 6, 3, 4, 1

47. A. Pseudo pregnancy ----- 1. Dog & Cat
B. Prostaglandin antagonist ----- 2. Ruminants
C. Endotheliochorial placenta ---- 3. Carazolol
D. Epitheliochorial placenta ----- 4. Bromocriptine
E. Accelerating parturition ----- 5. Horse & Pig
F. Synepitheliochorial placenta ---- 6. Indomethacin

a) 4, 3, 6, 1, 5, 2
b) 6, 3, 5, 2, 4, 1
c) 4, 6, 1, 5, 3, 2
d) 6, 1, 5, 2, 4, 3

48. A. Post partum vaginal discharge ---- 1. Glycoprotein
B. Pseudo pregnancy ----- 2. Secundus
C. Cervical mucus ----- 3. Embryo Transfer, 1890
D. Embryonic estrogen ----- 4. Clenbuterol
E. Heape ----- 5. M.R.P. in Pig
F. Delaying Parturition ----- 6. Cabergoline

a) 2, 6, 1, 5, 3, 4
b) 2, 4, 5, 1, 3, 6
c) 6, 5, 1, 2, 4, 3
d) 5, 3, 2, 1, 4, 6

49. A. Zero semen volume ----- 1. Azoospermia
B. Zero sperm concentration ----- 2. Teratozoospermia
C. Reduced sperm motility ----- 3. Asthenozoospermia
D. Reduced sperm concentration ----- 4. Hypospermia
E. Abnormal sperm ----- 5. Aspermia
F. Reduced semen volume ----- 6. Oligozoospermia

a) 1, 5, 4, 3, 6, 2
b) 5, 1, 3, 6, 2, 4
c) 1, 4, 2, 5, 3, 6
d) 5, 1, 6, 3, 2, 4

50. A. Mature C.L. ----- 1. Mesonephric duct
B. Female genitalia ----- 2. 40 - 90 days of gestation
C. Slipping of fetal membranes ----- 3. 80 - 120 days of gestation
D. Male genitalia ----- 4. Liver fluke like consistency
E. Fremitus ----- 5. Paramesonephric duct
F. Cuboni Test ----- 6. 150-290 days of gestation

a) 4, 1, 3, 5, 2, 6
b) 4, 1, 6, 5, 3, 2
c) 4, 5, 2, 1, 3, 6
d) 4, 5, 3, 1, 6, 2

51. A. Chediak Higashi syndrome ---- 1. Swine

- | | | |
|------------------------|------|----------------------|
| B. Polycystic Kidneys | ---- | 2. Hopping gait |
| C. Anury | ---- | 3. Ghost Pattern |
| D. Twinning | ---- | 4. Boars |
| E. "Balling Up" | ---- | 5. Iodine deficiency |
| F. Prolonged gestation | ---- | 6. Equine abortion |

- a) 3, 1, 2, 6, 4, 5
- b) 2, 5, 3, 1, 6, 4
- c) 6, 3, 1, 5, 2, 4
- d) 5, 3, 6, 2, 1, 4

52. A. Refrigeration of semen ---- 1. Glycerol
 B. Cryopreservation of semen ---- 2. 20 times more Zn than blood
 C. Buffalo semen ---- 3. Egg yolk
 D. Sperm membrane integrity --- 4. I.V.T dilutor
 E. Preservation of semen at room temp. ----5. D2 Extender
 F. Dog semen --- 6. H.O.S.T

- a) 1, 3, 2, 5, 4, 6
- b) 1, 5, 6, 3, 4, 2
- c) 3, 1, 2, 6, 4, 5
- d) 3, 1, 5, 6, 4,

53. Virchow's triad relates to
- a. Infarction
 - b. Embolism
 - c. Thrombosis
 - d. All of above

54. "Stepping syndrome" in pigs is due the deficiency of
- a) Fe
 - b) Se
 - c) Zn
 - d) Mg

55. An exotic dual purpose sheep breed with "mousy grey face"
- a) Southdown
 - b) Rambouillet
 - c) Merino
 - d) Cheviot

56. Process in which foreign DNA is introduced into another cell with the help of a viral vector
- a) Conjugation
 - b) Transformation
 - c) Both a&b
 - d) Transduction

57. Time of ovulation in Cattle is
- a) 10-15 hr after end of oestrus
 - b) 12-24 hr before end of oestrus

- c) 1-2 days before end of oestrum
 - d) 1-2 days after the onset of true oestrum
58. Laying of leathery eggs in chicken is associated with
- a) Raillietina
 - b) Prosthogonimus
 - c) Heterakis
 - d) Davainea
59. Which is an imino acid?
- a) Proline
 - b) Tryptophan
 - c) Arginine
 - d) Glycine
60. The CP (%) & ME (Kcal/Kg) on DMB for creep, grower and finisher diets for pigs as per BIS specification, 1986
- a) 23, 2800; 20, 2900; 20, 2600
 - b) 22, 3500; 20, 3300; 18, 3100
 - c) 20, 3370; 18, 3170; 16, 3170
 - d) None of these
61. Which of the following is a spasmolytic agent
- a) Hyoscine
 - b) Vetrabutine
 - c) Dipyrone
 - d) All
62. Recurring tympany is noticed in following condition
- a) TRP
 - b) Diaphragmatic hernia
 - c) Reticulo-omasal stenosis
 - d) All
63. The dose of Dinoprost for the treatment of open pyometra in the bitch
- a) 0.25-0.5mg/Kg
 - b) 0.5-1.0mg/Kg
 - c) 25-50mg/Kg
 - d) 50-100mg/Kg
64. A mating system designed to create a purebred population by mating successive generations of non-purebred females to purebred sires
- a) Top crossing
 - b) Incrosses
 - c) Incross breeding
 - d) Criss crossing
65. 'Toxovax' contains Tachyzoites of -----strain of Toxoplasma gondii.
- a) P13
 - b) 1B
 - c) 014

- d) S48
- 66.. Spastic and flaccid paralysis of worms are caused by the following drugs respectively
- a) Phenothiazine & Amitraz
 - b) Oxyclozanide & Livamizole
 - c) Pyrantel&Piperazine
 - d) Piperazine & Pyrantel
67. The incubation temperature of Yoghurt culture is
- a)41-43oC
 - b) 38-40oC
 - c) 32-33oC
 - d) Lower
68. A disinfectant of choice at FMD outbreak
- a) 2% NaOH
 - b) 4% Na₂Co₃
 - c) Both
 - d) None of these
69. Calf starter starts at-----of age
- a) 4th day
 - b) 1-2 w
 - c) 2-3w
 - d) 3-4w
70. “Dog sitting position” of Mare and Cow is which presentation
- a) Oblique dorsovertical
 - b) Dorsotransverse
 - c) ventrotransverse
 - d) None
71. Which media can be used for the culture of Tri/Tritrichomonas fetus?
- a) Diamond’s medium
 - b) Mannitol salt agar
 - c) Skirrow’s agar
 - d) All
72. “Varocay bodies” are characteristic of which tumour?
- a) Meningioma
 - b) Glioma
 - c) Neuroblastoma
 - d) Schwannoma
73. Ivermectin is not effective against flukes and tapeworm infections because
- a) Fumerate reductase is not present in flukes and tapeworms
 - b) Acetyl choline transmission is not present in flukes and tapeworms
 - c) Mitochondrial phosphorylation is not present in flukes and tapeworms
 - d) GABA transmission is not present in flukes and tapeworms
74. Age at which testes descend into the scrotum/testicular descent in Cats is
- a) Midgestation

- b) Between last few days of gestation and first few days after birth
 - c) Last few days of gestation
 - d) 2-5 days after birth
75. The tissue adhesive property of Lysine coated slides are due to its ----- group present in the Lysine.
- a) Imidazole
 - b) Epsilon
 - c) Indole
 - d) Guanidinium
76. Current jelly clot indicates
- a) Sudden death
 - b) Slow death
 - c) Cannot predict
 - d) None
77. Purely ketogenic amino acid
- a) Leucine
 - b) Lysine
 - c) Both a&b
 - d) Tyrosine&Tryptophan
78. 'Restrainer agent' used in the developer solution for processing the radiograph
- a) Hydroquinone
 - b) Sodium Sulfite
 - c) Potassium Bromide
 - d) Sodiumcarbonate
79. Which strain was developed by crossing Malpura sheep of Rajasthan with Rambouillet of France?
- a)Avikalin
 - b) Gaddi Synthetic
 - c) Hissardale
 - d) Deccani Merino
80. Marthandam project was started in 1921 by
- a) S Hatch
 - b) F L Brayne
 - c) Albert Mayer
 - d) M Gandhiji
81. Which of the following is wrong
- a. Suppurative meningoencephalitis- Listeriosis
 - b. Oesinophilic meningoencephalitis- Rabies
 - c. Lymphocytic meningoencephalomyelitis- Hog cholera
 - d. Acute fibrino endocarditis- BQ
82. Best example for Obligatory cyclozoonosis
- a) Hydatidosis

- b) Taeniasis
- c) Darling disease
- d) Both C&D

83. "Hepatitis cysticercosa" in sheep is a condition associated with

- a) Cysticercus bovis
- b) Cysticercus cellulosae
- c) Cysticercus tenuicollis
- d) Cysticercus fasciolaris

84. The encapsulated dendritic endings associated with the "light touch" function is

- a) Meissner's corpuscles
- b) Krause's end bulbs
- c) Pacinian corpuscles
- d) Ruffini's corpuscles

85. The drug of choice for coccidiosis in poultry

- a) Sulphaguanidine
- b) Sulphaquinoxaline
- c) Phthalyl sulphathiazole
- d) Sulphamethyl phenazole

86. 'Strauss test' is used for the diagnosis of following diseases except

- a) Wooden tongue
- b) Lumpy jaw
- c) Glanders
- d) Brucellosis

87. The wounds of more than 6-8 hr duration are considered as-----wound

- a) Contaminated
- b) Infected
- c) Surgical
- d) None

88. Buttress foot (U shape to V shape conversion) is a sequel of which disease

- a) Bobba bone
- b) Sore shin
- c) Navicular disease
- d) Pyramidal disease

89. Rabies virus travels at speed of-----mm/hr through axoplasm in the nerve root from the site of bite

- a) 5
- b) 10
- c) 15
- d) 20

90. Ideally, how much quantity of faeces should be collected in 10% formalin for laboratory diagnosis of parasitic eggs

- a) 2g

- b)3g
- c)4g
- d)5g

91. BLUP is a method, used for the evaluation of
- a) Cross breeding efficiency
 - b) Exotic breed
 - c) Indigenous breed
 - d) Sire
92. The signal for apoptosis is coming from
- a) Plasma membrane
 - b) Mitochondria
 - c) Golgi complex
 - d) Nucleus
93. Primary amyloidosis is seen in
- a) Chronic inflammatory condition
 - b) Bronchiectasis
 - c) Immunocytedyscrasia
 - d) All
94. The structure necessary for the viral attachment and also for inducing protective immune response in the host in case of rabies is
- a) Glycoprotein
 - b) Ribonucleo protein
 - c) Matrix protein
 - d) Lipoprotein
95. Latent infections of Trypanosomiosis in bovines is diagnosed by
- a) Mercuric chloridre test
 - b) Formol gel test
 - c) Thymol turbidity test
 - d) Stilbamide test
96. The sequel of 'Broken wind/ chronic alveolar emphysema'
- a) Hypertrophy of left auricle
 - b) Hypertrophy of right auricle
 - c) Hypertrophy of left ventricle
 - d) Hypertrophy of right ventricle
97. Laryngeal nerve paralysis' is observed in horses in which of the following condition
- a) Arsenic poisoning
 - b) Lead poisoning
 - c) Mercury poisoning
 - d) Molybdenum poisoning
98. Drug of choice for tapeworms in poultry
- a) Praziquantel
 - b) Dibutyltin dilaurate

- c) Bunamidine
- d) Niclosamide & Epsiprantel

99. Cardiac-specific enzyme/s for acute myocardial injury is

- a) Troponin I
- b) Troponin T
- c) Creatin kinase
- d) Both a&b

100. Mischief is punishable under the section

- a) IPC 428
- b) IPC 429
- c) IPC 420
- d) Both a&b

ICAR- JRF Model Question paper II– VETERINARY SCIENCE
Dr NAGARAJA. L
Assistant Professor, Department of Veterinary Medicine

1. Virchow's triad relates to

- a) Infarction
- b) Embolism
- c) Thrombosis
- d) None

2. Family is a

- a) Primary group
- b) Involuntary group
- c) Permanent group
- d) All

3. “Stepping syndrome” in pigs is due the deficiency of

- a) Fe
- b) Se
- c) Zn
- d) Mg

4. An exotic dual purpose sheep breed with “mousy grey face”

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- b) Rambouillet
- c) Merino
- d) Cheviot

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21. "Varocay bodies" are characteristic of which tumour?
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 - Glioma
 - Neuroblastoma
 - Schwannoma
22. ----- has the shortest gestation period of any of the common laboratory animals

- a) Rat
- b) Mice
- c) Hamster
- d) Guinea pig

23. (I 3/3 C 1/1 P 4/4 M 3/3) denotes the dental formula for

- a) Ox
- b) Horse
- c) Dog
- d) Pig

24. Insulin secretion is inhibited by

- a) Diazoxide
- b) Tolbutamide
- c) Streptozotocin
- d) Alloxan

25. The causative agent for Ring worm infection in cattle

- a) Trichophyton verrucosum
- b) Microsporum gallinae
- c) Trichophyton mentagrophytes
- d) Both a & c

26. A bulletin has-----page/s

- a) >50
- b) 2-12
- c) 12-20
- d) >20

27. Ivermectin is not effective against flukes and tapeworm infections because

- a) Fumerate reductase is not present in flukes and tapeworms
- b) Acetyl choline transmission is not present in flukes and tapeworms
- c) Mitochondrial phosphorylation is not present in flukes and tapeworms
- d) GABA transmission is not present in flukes and tapeworms

28. “Antinuclear factors” are observed in which immunological disorder

- a) Sjogren’s syndrome
- b) Rheumatoid arthritis
- c) Erosive polyarthritis
- d) Systemic Lupus Erythematosus

29. Median lethal dose value for ‘highly toxic’ poison is

- a) < 1 mg/Kg
- b) 1-50 mg/Kg
- c) 50-500 mg/Kg
- d) 0.5-5 g/Kg

30. Age at which testes descend into the scrotum/testicular descent in Cats is

- a) Midgestation
- b) Between last few days of gestation and first few days after birth
- c) Last few days of gestation

- d) 2-5 days after birth
31. The tissue adhesive property of Lysine coated slides are due to its ----- group present in the Lysine.
- a) Imidazole
 - b) Epsilon
 - c) Indole
 - d) Guanidinium
32. Current jelly clot indicates
- a) Sudden death
 - b) Slow death
 - c) Cannot predict
 - d) None
33. Purely ketogenic amino acid
- a) Leucine
 - b) Lysine
 - c) Both a&b
 - d) Tyrosine&Tryptophan
34. Average energy value of 1 kg cow's milk(Kcal)
- a) 670
 - b)750
 - c)1000
 - d) 500
35. As per BIS specification, floor space requirement for a farrowing sow in covered area
- a) 6-7 m²
 - b) 7-9 m²
 - c) 1m²
 - d) 3.4m²
36. 'Restrainer agent' used in the developer solution for processing the radiograph
- a) Hydroquinone
 - b) Sodium Sulfit
 - c) Potassium Bromide
 - d) Sodiumcarbonate
37. Which strain was developed by crossing Malpura sheep of Rajasthan with Rambouillet of France?
- a)Avikalin
 - b) Gaddi Synthetic
 - c) Hissardale
 - d) Deccani Merino
38. Marthandam project was started in 1921 by
- a) S Hatch
 - b) F L Brayne

- c) Albert Mayer
- d) M Gandhiji

39. Which of the following is wrong

- A. Suppurative meningoencephalitis- Listeriosis
 - B. Oesinophilic meningoencephalitis- Rabies
 - C. Lymphocytic meningoencephalomyelitis- Hog cholera
 - D. Acute fibrino endocarditis- BQ
- a) A
 - b) B
 - c) C
 - d) Both C&D

40. Vitamin A should be present in the compound cattle feed at the rate of -----
--IU/Kg as per BIS specification (1992)

- a) 5
- b) 50
- c) 500
- d) 5000

41. Best example for Obligatory cyclozoonosis

- a) Hydatidosis
- b) Taeniasis
- c) Darling disease
- d) Both C&D

42. The people who adopt new innovations earlier than the average number of
the society are known as

- a) Innovators
- b) laggards
- c) Early majority
- d) early adopters

43. Tetrathionate broth is an example for

- a) Enriched media
- b) Enrichment media
- c) Sugar media
- d) Indicator media

44. "Hepatitis cysticercosa" in sheep is a condition associated with

- a) Cysticercus bovis
- b) Cysticercus cellulosae
- c) Cysticercus tenuicollis
- d) Cysticercus fasciolaris

45. The encapsulated dendritic endings associated with the "light touch"
function is

- a) Meissner's corpuscles
- b) Krause's end bulbs
- c) Pacinian corpuscles
- d) Ruffini's corpuscles

46. The maintenance requirement of ME in lactating Sow-----
Kcal/KgW^{0.75}/day
- 133
 - 119
 - 105
 - 98
47. The bacterial strain used for the production of BCG vaccine in India
- Nakayama
 - PM-1503-3M
 - 17 D
 - Danish 1331
48. The earliest time for the following methods of pregnancy diagnosis in Cow is given below. Identify the right pair:Method Time
- Early pregnancy factor 3 days
 - Real time ultrasound 13 days
 - Pregnancy specific protein B 24 days
 - Membrane slip 33 days
 - Caruncles/cotyledons 80 days
 - Fremitus 85 days
- A&B
 - C&D
 - E&F
 - All
49. 'Amyloid like tubercles' are seen in case of Tuberculosis in
- Bovines
 - Horse
 - Dogs
 - Pig
50. The drug of choice for coccidiosis in poultry
- Sulphaguanidine
 - Sulphaquinoxaline
 - Phthalyl sulpha thiazole
 - Sulphamethyl phenazole
51. 'Strauss test' is used for the diagnosis of following diseases except
- Wooden tongue
 - Lumpy jaw
 - Glanders
 - Brucellosis
52. The stain used for the demonstration of urate crystals
- Alcian blue
 - DeGalantha
 - Congo Red
 - Best carmine
53. Type of burns where Bullae/Vesicles is present
- Type I

- b) Type II
 - c) Type III
 - d) Type IV
54. Vitamin C is found in which part of the eggs
- a) Albumen
 - b) Yolk
 - c) Both
 - d) Absent in eggs
55. Maize has the lowest concentration of
- a) Calcium
 - b) Niacin
 - c) Both
 - d) None
56. The wounds of more than 6-8 hr duration are considered as-----wound
- a) Contaminated
 - b) Infected
 - c) Surgical
 - d) None
57. Time of MRP(Maternal Recognition of Pregnancy) in Cow
- a) 12 days
 - b) 12-13 days
 - c) 16-17 days
 - d) 14-16 days
58. Buttress foot(U shape to V shape conversion) is a sequel of which disease
- a) Bobba bone
 - b) Sore shin
 - c) Navicular disease
 - d) Pyramidal disease
59. Ideally, how much quantity of faeces should be collected in 10% formalin for laboratory diagnosis of parasitic eggs
- a) 2g
 - b) 3g
 - c) 4g
 - d) 5g
60. Rabies virus travels at speed of-----mm/hr through axoplasm in the nerve root from the site of bite
- a) 5
 - b) 10
 - c) 15
 - d) 20
61. The steps in extension teaching could be better explained with
- a) AIDCAS
 - b) POSDCORB

- c) MANAGE
 - d) AIETA
62. Sexing of foetus can be most accurately done in bovines, ultrasonographically at ----- days of gestation period
- a) 50-55
 - b) 60-80
 - c) 120-140
 - d) 100-120
63. Derzy's disease/ Goose Plague, a highly contagious disease that affects goslings is caused by
- a) Birna virus
 - b) Corona virus
 - c) Orthomyxo virus
 - d) Parvo virus
64. Buffalo grass/ Water grass is
- a) Panicum maximum
 - b) Pennisetum pedicellatum
 - c) Brachiaria mutica
 - d) Cenchrus ciliaris
65. BLUP is a method, used for the evaluation of
- a) Cross breeding efficiency
 - b) Exotic breed
 - c) Indigenous breed
 - d) Sire
66. The signal for apoptosis is coming from
- a) Plasma membrane
 - b) Mitochondria
 - c) Golgi complex
 - d) Nucleus
67. A minimum of -----members is essential to start milk producers cooperative society.
- a) 20-30
 - b) 30-40
 - c) 40-50
 - d) 10
68. Primary amyloidosis is seen in
- a) Chronic inflammatory condition
 - b) Bronchiectasis
 - c) Immunocytedyscrasia
 - d) All
69. The structure necessary for the viral attachment and also for inducing protective immune response in the host in case of rabies is
- a) Glycoprotein

- b) Ribonucleo protein
 - c) Matrix protein
 - d) Lipoprotein
70. The symptoms that are likely to be noticed in a fracture are
- a) Abnormal mobility
 - b) Crepitus & loss of function
 - c) Deformity
 - d) All
71. Latent infections of Trypanosomiosis in bovines is diagnosed by
- a) Mercuric chloridre test
 - b) Formol gel test
 - c) Thymol turbidity test
 - d) Stilbamide test
72. Version is the mutational operation to correct -----
- a) Presentation
 - b) Position
 - c) Posture
 - d) All
73. Programme planning is a-----process
- a) Flexible
 - b) Rigid
 - c) Both a&b
 - d) None of these
74. Female worm of which parasite is found within proventricular glands?
- a) Acuria hamulosa
 - b) Capillaria annulata
 - c) Tetramers moheteda
 - d) Acuria spiralis
75. The sequel of ‘Broken wind/ chronic alveolar emphysema’
- a) Hypertrophy of left auricle
 - b) Hypertrophy of right auricle
 - c) Hypertrophy of left ventricle
 - d) Hypertrophy of right ventricle
76. For prevention of hypocalcemia, dietary cation anion difference of prepartal diets should be
- a) Positive
 - b) Negative
 - c) Equal
 - d) None
77. Ram castrated after service is known as
- a) Steer
 - b) Gimmer
 - c) Seggy

d) Wedder

78. 'Laryngeal nerve paralysis' is observed in horses in which of the following condition

- a) Arsenic poisoning
- b) Lead poisoning
- c) Mercury poisoning
- d) Molybdenum poisoning

79. Wing louse of poultry

- a) Menopon gallinae
- b) Menacanthus stramineus
- c) Lipeurus caponis
- d) None of these

80. Examples for Class II anti-arrythmic agents

- a) Lidocaine & Quinidine
- b) Propanolol & Tenolol
- c) Bretylium & Amiodarone
- d) Diltiazem & Nifedipine

81. Cannibalism occurs in poultry when diet is

- a) Protein free
- b) Protein rich
- c) Fibre free
- d) Fibre rich

82. Drugs which reduce gastrointestinal motility / "Non-prokinetic agents" are

- a) Atropine & Hyoscyamine
- b) Atropine
- c) Diphenoxylate & Loperamide
- d) All

83. Which of the following Cheese is made from whey?

- a) Sapsago
- b) Mozarella
- c) Ricotta
- d) Cottage

84. Drug of choice for tapeworms in poultry

- a) Praziquantel
- b) Dibutyltin dilaurate
- c) Bunamidine
- d) Niclosamide & Epsiprantel

85. "Raspberry jam" appearance of spleen is observed in

- a) Swine fever
- b) Equine infectious anaemia
- c) Erysipelas
- d) Amyloidosis

86. Cardiac-specific enzyme/s for acute myocardial injury is

- a) Troponin I

- b) Troponin T
- c) Creatin kinase
- d) Both a&b

87. Mischief is punishable under the section

- a) IPC 428
- b) IPC 429
- c) IPC 420
- d) Both a&b

88. PFA standards for different classes of milk are given below. Which one is wrong? Fat % (min) SNF % (min)

- A. Standardized milk 4.5 8.5
- B. Recombined milk 3.0 8.5
- C. Toned milk 3.0 8.5
- D. Double toned milk 1.5 (max.) 8.5

89. If valvular thrombus is associated with swine erysipelas, then mural thrombus is associated with which disease condition

- a) BQ
- b) HS
- c) Anthrax
- d) Pink eye

90. A glial cell which is not ectodermal in origin is

- a) Astrocyte
- b) Oligodendrocyte
- c) Microglia
- d) Ependymal cells

91. Red nucleus is seen in

- a) Plasma cell
- b) Macrophage
- c) Kupffer cells
- d) None

92. The Oxygen Dissociation Curve shifts to the right (low affinity for O₂) in the following condition

- a) Increase in hydrogen ion concentration
- b) Increase in organic phosphates/ 2, 3 -DPG
- c) Increase in Temperature
- d) All

93. In pox lesions, which stage is involved in the 'spread' of virus?

- a) Papule
- b) Pustule
- c) Macula
- d) Vesicle

94. Who invented the milking machine in 1878?

- a) Carl Gustav de Laval

- b) Anna Baldwin
- c) Percy L
- d) Arthur Leslie Large

95. 1.3% sodium bicarbonate solution is

- a) Isotonic
- b) Hypertonic
- c) Hypotonic
- d) none

96. The '4 Rs' is a basic philosophy of animal ethics that refers to the principles of replacement, reduction, refinement and-----

- a) Right Source
- b) Right Rate
- c) Right Place
- d) Rehabilitation

97. IgY is analogous to which Mammalian Ig-----

- a) Ig M
- b) IgG
- c) IgE
- d) Both b&c

98. Calcium and phosphorus specification (per cent by mass, min.) of broiler finisher diet as per BIS

- a) 3.0&0.5
- b) 1.2&0.5
- c) 1&0.5
- d) 3.0 &0.6

99. To enable 10 million rural milk producer's families to build a viable, self sustaining dairy industry was the objective of -----

- a) OF-III
- b) OF-II
- c) OF-I
- d) IRDP

100. 'Marked cerebellar hypoplasia' is associated with which viral agent?

- a) Parvo virus
- b) BVD-MD virus
- c) Both a&b
- d) None

**ICAR- JRF Model Question paper III– VETERINARY SCIENCE
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1. Which of the following inhibits aggregation of platelets
 - a. Aspirin
 - b. Thromboxane A₂
 - c. Urokinase
 - d. Streptokinase

2. The longest muscle in animal body is:
 - a. Biceps femoris
 - b. Longissimus dorsi
 - c. Longissimus costarum
 - d. Levator costarum

3. Epithelial pearls are seen in
 - a. Basal cell carcinoma
 - b. Adenocarcinoma
 - c. Trichoepithelioma
 - d. Squamous cell Carcinoma

4. Motility of bacteria is due to
 - a. Plasmid
 - b. Flagella
 - c. Pili
 - d. None

5. The organ needs to be examined for *Trichinella spiralis* in routine PM examination
 - a. Lungs
 - b. Diaphragm
 - c. Spleen
 - d. Intestine

6. The following have branching except:
 - a. *Actinomycetes*
 - b. *Nocardia*
 - c. *Mycobacterium*
 - d. *Listeria*

7. The zoonotic disease involving birds playing an important role in the transmission:
 - a. Salmonellosis
 - b. Campylobacterosis
 - c. Influenza
 - d. All

8. GnRH is secreted from:
 - a. Hypothalamus
 - b. Hypophysis
 - c. Ovary
 - d. Uterus

9. Thawing is done at:
 - a. 30°C-30s
 - b. 37°C-30s
 - c. 40°C-30s
 - d. 25°C-20s

10. Hjarre's disease in poultry is due to
 - a. *E coli*
 - b. *Shigella*
 - c. *Salmonella*
 - d. *Proteus*

11. Type of lenses in electron microscope:
 - a. Glass
 - b. Electrostatic
 - c. Quartz
 - d. None

12. Average volume of semen ejaculate in boar (ml) is:
 - a. 10
 - b. 100
 - c. 250
 - d. 500

13. The anaesthesia which facilitates the examination of penis and prepuce
 - a. Epidural
 - b. Pudental
 - c. Paravertebral
 - d. High Epidural

14. *Brcella ovis* infection in ram is causes
 - a. Posthitis

- b. ; Epididymitis
 - c. Orchitis
 - d. Prostatitis
15. Calcitonin is secreted by
- a. Parathyroid
 - b. Adrenal
 - c. Thyroid
 - d. Ovary
16. Type of WBC most numerous in cows is
- a. Eosinophils
 - b. Lymphocytes
 - c. Neutrophils
 - d. Monocytes
17. Duration of spermatogenesis (days) in buffalo bulls:
- a. 64
 - b. 54
 - c. 48
 - d. 40
18. The antibiotic doesn't have dose dependent antibacterial action
- a. OTC
 - b. Amikacin
 - c. Enrofloxacin
 - d. Sulfadiazine
19. The estrogen antagonist used to treat mammary and endometrial carcinoma in bitch
- a. Megestrol acetate
 - b. Tamoxifen citrate
 - c. Estradiol cypionate
 - d. Mitotane
20. Cyclozoonosis is related to:
- a. Brucellosis
 - b. Echinococcosis
 - c. Leishmaniosis
 - d. None
21. Subacute glomerulonephritis is grossly described as
- a. White Spotted Kidney
 - b. Large White Kidney
 - c. Small Granular Contracted Kidney;
 - d. Flea Bitten Kidney
22. Vagus nerve is:
- a. Sensory Nerve
 - b. Motor Nerve
 - c. Mixed Nerve
 - d. Spinal Nerve

23. Ovulation takes place at the end of estrus period in:
- Canine
 - Bovine
 - Ovine
 - Caprine
24. The following is to be injected prior to any major surgery/ wound management in horses
- Antibiotics
 - Styptics
 - NSAIDs
 - Tetanus toxoid
25. The following produces Aflatoxin:
- Penicillium notatum*
 - Penicillium rubri*
 - Aspergillus fumigates*
 - Trichophyton* sp
26. Acute gangrenous myositis is characteristic pathological lesion of:
- Anthrax
 - BQ
 - Leptospirosis
 - Pasteurellosis
27. Type of Nucleic acid present in virus:
- DNA
 - RNA
 - Both
 - Either
28. World environment day falls on:
- February 12
 - April 8
 - June 5
 - October 4
29. Lobulation of the lungs is distinct in:
- Cow
 - Horse
 - Dog
 - Fowl
30. The number of Lumbar vertebrae in dog is:
- 6
 - 5
 - 7
 - 8
31. Mode of hook worm infection is mainly through
- Oral

- b. Skin Penetration
 - c. Lactogenic
 - d. All
32. The nucleated thrombocytes are present in blood of:
- a. Horse
 - b. Camel
 - c. Fowl
 - d. Cow
33. The disease not produced by Mycoplasma
- a. CRD
 - b. CBPP
 - c. CCPP
 - d. BSE
34. The following species not affected by FMD
- a. Elephant
 - b. Gaur
 - c. Rhino
 - d. Wild Boar
35. Type of animals equines are:
- a. Polyestrus
 - b. Seasonally Polyestrus
 - c. Monoestrus
 - d. None
36. Bitterness of milk is due to
- a. Proteolysis
 - b. Lipolysis
 - c. Autolysis
 - d. All
37. The important vitamin that inactivates free radicals
- a) Vitamin A
 - b) b)Vitamin B
 - c) c)Vitamin D
 - d) d)Vitamin E
38. Which of the following diseases in poultry is not vertically transmitted?
- a) EDS 76
 - b) Mycoplasmosis
 - c) Lymphoid Leucosis
 - d) New Castle Disease
39. The ingredient of blister is:
- a) Mag sulph
 - b) Bin Iodide of mercury
 - c) Copper sulph
 - d) Iodine

40. The vector through which Trypanosomes are transmitted
- Tabanus*
 - Anopheles*
 - Culicoides*
 - Boophilus*
41. Camel is
- Spontaneous Ovulator
 - Induced Ovulator
 - Silent Ovulator
 - None
42. The largest immunoglobulin
- Ig G
 - Ig M
 - Ig A
 - Ig D
43. An example of long duration local anaesthetic
- Bupivacaine
 - Lignocaine
 - Lidocaine
 - Paracaine
44. The chemical used to control snail population
- Copper sulph
 - Pot hydroxide
 - Carbon tetrachloride
 - None
45. The infective stage of *Schistosoma* spps.
- Eggs
 - Sporocyst
 - Cercaria
 - Metacercaria
46. Reserpine is obtained from
- Ocimum sanctum*
 - Adhatoda vasica*
 - Leptadena Reticulare*
 - Rauwolfia serpentine*
47. Soil erosion is due to:
- Deforestation
 - Soil Formation
 - Soil Conservation
 - All
48. Diffuse suppuration in the sub cutaneous tissue is
- Pustule

- b) Phlegmon
 - c) Acne
 - d) Furuncle
49. During second stage of parturition there is a release of an extra amount of
- a) Oestrogen
 - b) Progesterone
 - c) Oxytocin
 - d) PGF₂ alfa
50. *Brucella* organisms multiply in the presence of the alcohol
- a) Glucose
 - b) Galactose
 - c) Erythritol
 - d) Fructose
51. Domestic sewage contains the following
- a) Chemicals
 - b) Organic Matter
 - c) Highly Toxic Substances
 - d) All
52. Gasping is a symptom in:
- a) ILT
 - b) Avian Influenza
 - c) Avian Leucosis
 - d) Ranikhet Disease
53. The sporadic disease is:
- a) HS
 - b) Tetanus
 - c) FMD
 - d) Avian Influenza
54. The leucocytic granules more toxic to parasites
- a) Eosinophils
 - b) neutrophils
 - c) basophils
 - d) lymphocytes
55. The target organ of shock in dogs is
- a) Liver
 - b) Lungs
 - c) Intestine
 - d) Heart
56. Electrical stunning is widely used in
- a) Cattle
 - b) Poultry; Pig
 - c) Poultry; Buffalo
 - d) Poultry; Sheep

57. The vector for *Leishmania* is
- Phlebotomus*
 - Culicoides*
 - Tabanus*
 - Musca*
58. The presentation of fetus in breech presentation is
- Anterio Longitudinal
 - Posterior Longitudinal
 - Dorso Transverse
 - Ventro Transverse
59. During recent outbreak of Avian Influenza in South East countries, subtype has been identified
- H5N1
 - H5N2
 - H2N9
 - H1N5
60. Garlic like odour of gastrointestinal contents is suggestive of poisoning with
- Nitrate
 - HCN
 - Alkali
 - Phosphorus
61. The extracellular parasite
- Babesia*
 - Theileria*
 - Anaplasma*
 - Trypanosome*
62. Occupational radiation hazards can be prevented by wearing an apron of
- Aluminium
 - Copper
 - Lead
 - Silver
63. The largest deer found in india
- Sambar
 - Nilgai
 - Spotted Deer
 - Barasingah
64. The state bird of Gujarat
- King Vulture
 - Saras Crane
 - Pea Fowl
 - Flamingo
65. Campylobacterosis is diagnosed by
- Milk Ring Test

- b) HA
 - c) Intradermal Inoculation
 - d) Vaginal Mucous Agglutination Test
66. Cubonix test is used to diagnose pregnancy in
- a) Bitch
 - b) Mare
 - c) Sow
 - d) Cow
67. Programmed cell death is called
- a) Phagocytosis
 - b) Mytosis
 - c) Necrosis
 - d) Apoptosis
68. Rodent control is very much effective in control of
- a) Leptospirosis
 - b) Plague
 - c) Salmonellosis
 - d) All
69. The term epsilon is associated with
- a) Brucellosis
 - b) Enterotoxaemia
 - c) Marek's Disease
 - d) Erysipelas
70. Blow gun rifle is fairly accurate for the target up to the distance of
- a) 40 metres
 - b) 80 feets
 - c) 80 metres
 - d) 40 feets
71. A live vaccine among the following
- a) HS
 - b) *Brucella* S19
 - c) BQ
 - d) Rabies
72. A well established protozoal disease transmitted by way of milk
- a) Toxoplasmosis
 - b) Giardiosis
 - c) Cryptosporidiosis
 - d) None
73. Cells spermatids are
- a) Haploids
 - b) Diploids
 - c) Tetraploids
 - d) Triploids

74. Navicular bone in horses
- Patella
 - Proximal Sesamoids
 - Febella
 - Distal Sesamoids
75. Length of gestation in mares
- 9 months 9 days
 - 8 months 8 days
 - 10 months 10 days
 - 11 months 11 days
76. Ingestion of *Lantana* foliage causes
- Hepatotoxicity And Secondary Photosensitization
 - Acute Enteritis
 - Pulmonary Haemorrhage
 - Nephrotoxicity
77. Parasite of pulmonary artery
- Sarcoptes*
 - Cysticercus*
 - Toxoplasma*
 - Dirofilaria immitis*
78. Irritant and non isotonic drug solution are injected by which route
- Intravenous
 - Intramuscular
 - Sub Cutaneous
 - Intraperitoneal
79. Deaths among clinically affected animals indicates
- Incident Rates
 - Morbidity Rate
 - Fatality Rate
 - Prevalence Rate
80. The stomach fluke disease is caused in cattle due to
- Paramphistomum cervi*
 - Moniezia expansa*
 - Fasciola hepatica*
 - Neoascaris vitulorum*
81. In paraffin block making technique fat/lipid is dissolved by
- Formaline
 - Xylene
 - Paraffin
 - Alcohol
82. Electron microscope was invented by
- Leewenhock

- b) Pastuer
 - c) Knoll and Ruska
 - d) Elford
83. The characteristic lesion in brain of cow affected by mad cow disease
- a) Neuronal Degeneration
 - b) Neuronal Vacuolation
 - c) Inclusion Bodies in Neurons
 - d) Encephalitis
84. Antihypertensive drug with angiotensin converting enzyme inhibiting action
- a) Prazosin
 - b) Verapamil
 - c) Frusemide
 - d) Captopril
85. Apex of bovine heart is attached by
- a) Cardio thoracic ligament
 - b) Pericardio sternal ligament
 - c) Cardiac phrenic ligament
 - d) Coronary ligament
86. Purkinjee cells are noted in the
- a) Myocardium
 - b) Cerebellum
 - c) Cerebrum
 - d) Myometrium
87. Michael Bishop and Harold Varmus were awarded Nobel Prize in 1989 for their work on
- a) Monoclonal Antibodies
 - b) Proto Oncogenes
 - c) Chemical Carcinogens
 - d) Apoptosis
88. Bioterrorism is associated with
- a) Echinococcosis
 - b) Anthrax
 - c) Leishmaniosis
 - d) Tuberculosis
89. Caecal coccidiosis is caused by
- a) *E acervulina*
 - b) *E magna*
 - c) *E tenella*
 - d) *E necatrix*
90. Name the drug of choice for treatment of Thieleriosis
- a) Suramin
 - b) Buparvaquon
 - c) Nitrothiozol
 - d) Clopidol

91. An antibiotic that interferes with bacterial cell wall synthesis
- Gentamicin
 - Penicillin
 - Sulphonamide
 - None
92. Fundamental germ layer
- Ectoderm
 - Mesoderm
 - Endoderm
 - Mesenchymal Cells
93. Agar is composed of
- Protein
 - Lipids
 - Carbohydrates
 - Mixture of all three
94. Rabies virus is
- Viscerotropic
 - Neurotropic
 - Dermotropic
 - None
95. Reverse transcriptase enzyme is present in the virus family of
- Pox
 - Adeno
 - Retro
 - Irido
96. The drug active against cestodes
- Pyrantel
 - Thiophanate
 - Hexachlorophene
 - Praziquantel
97. The desirable limit of fluoride (mg/l) in human drinking water is
- 1
 - 3
 - 5
 - 7
98. The inflammation of hoof of horse is called
- Synovitis
 - Bursitis
 - Naviculitis
 - Laminitis
99. The brachicephalic breed of dog
- Collie

- b) Pug
- c) Doberman
- d) German Shepherd

100. Warfarin poisoning is treated by administration of Vitamin

- a) K
- b) E
- c) A
- d) C

ANIMAL SCIENCE SECTION

Animal Genetics and Breeding

V.B.Shettar

1. Freemartin refers to
 - A. Female calf
 - B. Male calf
 - C. Both
 - D. Hermaphrodite
2. Daughter of a haemophilic man could be a
 - A. Carrier
 - B. Non-carrier
 - C. Both A and B
 - D. Unaffected
3. If no crossover takes place between two linked genes, the number of phenotypes possible from a test crossed heterozygous individual would be
 - A. Four
 - B. One
 - C. Two
 - D. Three
4. Crossing over increases with increase in the
 - A. Distance between genes.
 - B. Distance between chromosomes
 - C. Distance between alleles
 - D. Distance between nucleotides

5. A sex ratio of 2:1 in drosophila is indicative of
 - A. Linked genes
 - B. Lethal genes
 - C. Intersex
 - D. Dominance

6. A crossing between F1 hybrid with homozygous recessive individual is known as
 - A. Monohybrid cross
 - B. Dihybrid cross
 - C. Back cross
 - D. Test cross

7. _____ will not express its phenotype.
 - A. Hypostatic gene
 - B. Epistatic gene
 - C. Dominant gene
 - D. Codominant gene

8. Expression of a sex limited character is more predominant in
 - A. One sex
 - B. Both sex
 - C. Equal in both
 - D. Nil in both

9. The chromosome complement in pigs similar to the Down's syndrome of human being is
 - A. 38, XX.
 - B. 38, XY
 - C. 39, XXY
 - D. 37, XO

10. _____ numbers of alleles are required for the expression of a trait in multiple allelic series.
 - A. One
 - B. Two
 - C. Three
 - D. Four

11. Exchange of chromosomal part between _____ is known as crossing over.
 - A. homologous chromosomes
 - B. Non- homologous chromosomes
 - C. Sister chromatid
 - D. All of the above

12. Mitosis process starts when the individual is
 - A. Sexually matured
 - B. At birth
 - C. At one year
 - D. At fertilization

13. Non existence of 9:3:3:1 F₂ phenotypic ratio could be an indication of
- Epistatic interaction
 - Overdominance
 - Dominance
 - Multiple alleles
14. There is no difference between the structure of autosomes and sex chromosomes of
- B.taurus and B.indicus cattle
 - B.taurus and B.bubalus
 - B.taurus and B.grunienses
 - B.bubalus and B.indicus
15. There is no carrier stage for sex linked traits in female
- Poultry birds.
 - Piggery
 - Canines (Dogs)
 - Small Ruminants (Sheep & Goat)
16. Repulsion phase refers to two
- Non-linked genes.
 - Multiple Alleles
 - Dominant & Recessive genes
 - Linked genes
17. Turner's syndrome is an example for
- Trisomy of chromosomes
 - Nullisomy of chromosomes
 - Tetrasomy of chromosomes
 - Monosomy chromosomes
18. Forward mutation is _____ compared to backward mutation.
- Less
 - More
 - Same
 - double
19. Non dysjunction is responsible for
- Structural chrmosomal aberrations.
 - Numerical chrmosomal aberrations
 - Both A & B
 - None of the above
20. Synopsis occurs between chromatids of
- Maternal chromosomes.
 - Paternal chromosomes
 - Homologous chromosomes
 - Both A & B
21. Cytoplasmic inheritance occurs from
- Father to son.
 - Mother to son

- C. Both A & B
 - D. None of the above
22. Repulsion and coupling phase are formed between the genes located on the
- A. Same chromosomes.
 - B. Different homologous chromosomes
 - C. Paternal & Maternal chromosomes
 - D. All of the above
23. Holandric gene is transmitted from
- A. Male parent to male offspring.
 - B. Male parent to female offspring.
 - C. Female parent to male offspring.
 - D. Female parent to female offspring
24. Tortoise shell cat is due to X linked alleles that are
- A. Co-dominant.
 - B. Recessive
 - C. Both A & B
 - D. None of the above
25. Transcription takes place in
- A. Cytoplasm.
 - B. Nucleus
 - C. Mitochondria
 - D. Ribosomes
26. Milk production is a sex limited trait and hence bulls
- A. Do not carry genes for it.
 - B. Carry genes
 - C. May not carry genes
 - D. Depends upon environment
27. Dihybrid phenotypic F₂ ratio in complete dominance is
- A. 9:3:3:1.
 - B. 12:3:1
 - C. 15:1
 - D. 9:7
28. Autosomes are present in
- A. Sperm
 - B. ovum
 - C. somatic cell
 - D. All above
29. In “Mendel’s law of independent assortment” expression of one pair of allele is being
- A. Dependant of that of another pair of allele
 - B. Independent of that of another pair of allele
 - C. Both A & B
 - D. None of these

30. RNA is found in
- A. Cytoplasm
 - B. Nucleus.
 - C. Migratory
 - D. Both A & B
31. Chromosome number in different species increases with
- A. Increase in the size of animal.
 - B. Increases with age
 - C. Depends upon environment
 - D. Remains same
32. In overdominance condition heterozygotes are superior to
- A. Heterozygous dominant
 - B. Both homozygotes.
 - C. recessive
 - D. All of the above
33. Klinefelter's syndrome is an example of trisomy of
- A. autosomes.
 - B. Allosomes
 - C. Sex chromosomes
 - D. Both A & B
34. Son of a hemophilic man and normal woman is a
- A. Carrier.
 - B. Non- carrier.
 - C. Maybe carrier.
 - D. Depends upon crossing over
35. Sex limited genes are located on
- A. Sex chromosomes.
 - B. Autosomes
 - C. Allosomes
 - D. Both B & C.
36. Crossovers occur at _____ stage.
- A. Leptotene
 - B. Zygotene
 - C. Pachytene
 - D. Diakinesis
37. Double crossovers restore the parental combination of the
- A. Distant genes.
 - B. Closely located genes
 - C. Multiple alleles
 - D. Dominant genes
38. The mutation caused by mutagenic agent is termed as
- A. Point mutation.
 - B. Spontaneous mutation

- C. Forward mutation
 - D. Induced mutation
39. Mutation rate is same for _____ in an individual.
- A. All genes
 - B. Cistron
 - C. Recon
 - D. Muton
40. Crossover percentage between two linked genes cannot exceed
- A. 50%.
 - B. 25%
 - C. 75%
 - D. 1%
41. Crossover is absent in _____ drosophila.
- A. Male
 - B. Female
 - C. Both male and female
 - D. Present in both male and female
42. An unusual sex ratio is indicative of
- A. Lethal genes.
 - B. Semi-lethal
 - C. Sub-lethal
 - D. All of the above
43. Haemophilia is
- A. Sex linked dominant lethal.
 - B. Sex linked co-dominant lethal.
 - C. Autosomal
 - D. Sex linked recessive.
44. Mendel's laws were rediscovered by
- A. Watson and Crick.
 - B. Correns & Tscemark
 - C. Hugo de-vries,
 - D. Both B & C
45. Cryptorchidism is an example of
- A. Sex influenced trait.
 - B. Sex -limited trait.
 - C. Sex-linked trait.
 - D. Autosomal defects
46. AB blood group individual is a
- A. Universal donor.
 - B. Universal acceptor.
 - C. Accept only from AB blood group
 - D. All of the above

47. Independent assortment is applicable to genes present on
- Homologous chromosomes.
 - Non-homologous chromosomes
 - Sex chromosomes
 - All the above
48. Holandric genes are located on
- X chromosomes.
 - Y chromosome
 - Autosomes
 - Mitochondrial DNA
49. Cow is
- Heterogametic.
 - Homogametic
 - Transgender
 - Chimera
50. _____ proposed the theory of inheritance of acquired characters.
- Darwin
 - Lamarck
 - Correns
 - Bateson
51. _____ is referred to as resting phase.
- Metaphase
 - Prophase
 - Interphase
 - Telophase
52. Spermatid has ____ number of chromosomes.
- Diploid
 - Haploid
 - Triploid
 - Polyploid
53. The dihybrid ratio is the
- product of two monohybrid ratios
 - sum of two monohybrid ratios
 - product of two dihybrid ratios
 - product of monohybrid and dihybrid ratios
54. Genotypic and phenotypic ratio is same in
- F₂ co-dominant gene action.
 - F₂ dominant gene action.
 - F₂ overdominant gene action.
 - F₂ Incompletely dominant gene action.
55. The probability of obtaining a male offspring is
- One
 - Half

- C. $1/4^{\text{th}}$
 - D. Zero
56. When the frequency of a gene in a line reaches _____ it is said to be lost.
- A. 1.0
 - B. 0.5
 - C. Zero
 - D. 0.25
57. _____ adds new gene to the population.
- A. Selection
 - B. Mutation
 - C. Inbreeding
 - D. All the above
58. Karyotypes are made using
- A. anaphase chromosomes
 - B. Prophase chromosomes
 - C. Metaphase chromosomes
 - D. Telophase chromosomes
59. An organism with eight chromosomes forms
- A. eight tetrads
 - B. two tetrads
 - C. One tetrads
 - D. Four tetrads
60. _____ proposed the theory of pangenesis.
- A. Lamarck
 - B. Darwin
 - C. Correns
 - D. Bateson
61. Robertsonian translocation is a
- A. simple translocation
 - B. Transition
 - C. Transcription
 - D. Inversion
62. The scientist who first demonstrated the mutagenic effect of X-ray is
- A. Bateson.
 - B. Mendel
 - C. H. G. Khorana
 - D. Hugo de Vries
63. Translocation takes place in the.
- A. Cytoplasm
 - B. Nucleus
 - C. Mitochondria
 - D. Golgi complex

64. Inheritance of horned condition in sheep is under the control of
- A. autosomal gene
 - B. allosomal gene
 - C. both A & B
 - D. None of the above
65. Multiple alleles occupy the
- A. same loci and affect the same trait
 - B. different loci and affect the different trait
 - C. different loci and affect the same trait
 - D. same loci and affect the different trait
66. Meiosis is absent in
- A. sex cells.
 - B. Somatic cells
 - C. Sperms only
 - D. Ova only
67. A human male is a carrier for
- A. sex linked trait.
 - B. Y- linked trait
 - C. Is not a carrier
 - D. All of the above
68. Selection increases the
- A. undesired genes.
 - B. desired genes
 - C. dominant genes
 - D. recessive genes
69. Autosomes are absent in
- A. Sperm
 - B. ovum.
 - C. Somatic cells
 - D. Present in all
70. Inheritance of horned condition in sheep is under the control of
- A. autosomal gene.
 - B. X- chromosome
 - C. Y- chromosome
 - D. Both X and Y chromosomes
71. Inbreeding coefficient ranges between
- A. -1 to +1
 - B. 0 to +1
 - C. 0 to ∞
 - D. -1 to 0
72. Prepotency of an individual can be increased by
- A. Crossbreeding
 - B. Out breeding

- C. grading up
 - D. inbreeding
73. The following has direct relationship
- A. Full sibs
 - B. Sire and dam
 - C. Sire and daughter
 - D. Half sibs
74. A person suffering from Klinefelter's syndrome will have the following chromosome number
- A. 45
 - B. 46
 - C. 47
 - D. 48
75. Free martin always refers to
- A. Male calf
 - B. Female calf
 - C. Dead calf
 - D. Premature calf
76. The chromosomal complement of a normal bull is
- A. 60,XX
 - B. 58,XY
 - C. 58,XX
 - D. 60,XY
77. The genes for sex limited traits are
- A. Present only in one sex
 - B. Expressed only in one sex
 - C. Not present in both sexes
 - D. Not expressed in both sexes
78. Protein synthesis occurs in
- A. Nucleus
 - B. Mitochondria
 - C. Ribosomes
 - D. Golgi bodies
79. Unequal number of replications is possible in
- A. CRD
 - B. CRBD
 - C. CRD and CRBD
 - D. LSD
80. The probability of an impossible event is
- A. One
 - B. Zero
 - C. 0.5
 - D. ∞

81. The shape of the curve in normal distribution is
- A. Sigmoid
 - B. Zig zag
 - C. Straight
 - D. Bell
82. One Giga byte is equivalent to
- A. 1000 MB
 - B. 1024 MB
 - C. 124 MB
 - D. 100 MB
83. The software used in statistical operations of data is
- A. Microsoft word
 - B. Microsoft Excel
 - C. Microsoft powerpoint
 - D. Microsoft office
84. The haploid number of chromosomes in pigs is
- A. 32
 - B. 30
 - C. 19
 - D. 27
85. The number of possible genotypes in Five –allele multiple series will be
- A. 10
 - B. 15
 - C. 12
 - D. 5
86. In Bees sex is determined by
- A. Sex chromosomes
 - B. Environment
 - C. Single gene effect
 - D. Haplodiploidy
87. Down's syndrome individuals are
- A. Monosomic
 - B. Trisomic
 - C. Nullisomic
 - D. Double trisomic
88. Which of the following is sex linked trait
- A. Hemophilia
 - B. Bald condition
 - C. Milk yield
 - D. Horned condition in sheep
89. CIB method in drosophila was proposed by
- A. Morgan
 - B. Mendel

- C. Muller
 - D. Meisher
90. One of the following is not the genotype of walnut comb
- A. RRPP
 - B. RrPp
 - C. Rrpp
 - D. RrPP
91. Synthesis of RNA from DNA is termed
- A. Transcription
 - B. Transformation
 - C. Translation
 - D. Transduction
92. The mating of F₁ individual with recessive parent is
- A. Interse mating
 - B. Test cross
 - C. Forward cross
 - D. Inter cross
93. Cross over distance between two genes on a chromosome will never exceed
- A. 25%
 - B. 50%
 - C. 75%
 - D. 100%
94. Hair on ear pinna is an example of
- A. Recessive epistasis
 - B. Holandric inheritance
 - C. Linkage
 - D. Codominance
95. The following F₂ phenotypic ratio is not an indication of epistasis interaction.
- A. 12:3:1
 - B. 9:7
 - C. 1:2:1
 - D. 9:6:1
96. Animal cell lacks the following
- A. Nucleus
 - B. Mitochondria
 - C. Cell wall
 - D. Lysosomes
97. Mule is a cross between
- A. Jack and Mare
 - B. Stallion and Hinny
 - C. Jack and ewe
 - D. Stallion and Doe

98. Crossing between F1 hybrid with homozygous recessive is
 A. Monohybrid cross
 B. Back cross
 C. Incross
 D. Test cross
99. Holandric genes can be transmitted from
 A. Male parent to male offspring
 B. Male parent to female offspring
 C. Female parent to male offspring
 D. Female parent to female offspring
100. The number of sperms resulting from 6 primary spermatocytes is
 A. 6
 B. 12
 C. 18
 D. 24

Key:

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1.	A	21	B	41	A	61	A	81	D
2.	A	22	A	42	D	62	D	82	B
3.	D	23	A	43	A	63	B	83	B
4.	A	24	A	44	D	64	A	84	C
5.	B	25	B	45	D	65	A	85	B
6.	D	26	B	46	B	66	B	86	D
7.	A	27	A	47	B	67	C	87	B
8.	A	28	D	48	B	68	B	88	A
9.	D	29	B	49	B	69	D	89	C
10	B	30	D	50	B	70	A	90	C
11	A	31	D	51	C	71	B	91	A
12	D	32	D	52	B	72	D	92	B
13	A	33	D	53	A	73	C	93	B

14	A	34	B	54	A	74	C	94	B
15	A	35	D	55	B	75	B	95	C
16	D	36	B	56	C	76	D	96	C
17	A	37	A	57	B	77	B	97	A
18	B	38	D	58	C	78	C	98	D
19	A	39	C	59	D	79	A	99	A
20	D	40	A	60	A	80	B	100	D

Livestock Statistics

Sl. No	Species	No. of breeds	Population (millions)			% of the world
			1997	2003	2007	
1	Cattle	37	198.9	185.2	199.1	12.5
2	Buffaloes	13	89.9	97.9	105.3	56.7
3	Sheep	40	57.5	61.5	71.6	20.9
4	Goat	23	122.7	124.4	140.5	
5	Pig	--	13.3	13.5	11.1	1.5
6	Poultry	15	347.6	489.0	648.9	3.1

Order of states

Milk producing

Uttar Pradesh

Rajasthan

Punjab

Egg producing

Andhrapadesh

Tamil Nadu

Haryana

Meat producing

Andhrapadesh

Maharashtra

Uttar Pradesh

- Per capita milk availability 268g
- Per capita Egg availability 48
- Total milk production 115 MT
- Total meat production 4.01 MT
- Share of Agril production to GDP 15%
- Share of Livestock to GDP 4%
- Share of livestock to Agriculture 26%

Model question paper in Animal Nutrition

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1. Gross energy loss due to methane production is
 - a. 8%
 - b. 12%
 - c. 16%
 - d. 20%

2. Apparent digestible energy of a feed is
 - a. Higher than true digestible energy
 - b. Lower than true digestible energy
 - c. Equal to true digestible energy
 - d. Lower than metabolizable energy

3. Ratio of CO₂ produced to O₂ consumed is referred to as
 - a. Thermal equivalent
 - b. Calorific value
 - c. Gas exchange
 - d. Respiration quotient

4. Gross energy of a feed is estimated by
 - a. Indirect calorimeter
 - b. Direct calorimeter
 - c. Bomb calorimeter
 - d. Respiration calorimeter

5. Optimum nutritive ratio for young stock
 - a. 9:1
 - b. 6:1
 - c. 3:1
 - d. 1:9

6. TDN content of a feed increases with
 - a. Increase in mineral content
 - b. Fat content of feed
 - c. Increase in moisture content
 - d. Increase in vitamin content

7. Starch equivalent denotes
 - a. Gross energy of feed
 - b. Digestible energy of feed

- c. Metabolisable energy of feed
 - d. Net energy of feed
8. Crotalaria plant contains
- a. Alkaloid
 - b. Glycoside
 - c. Momosine
 - d. Aflatoxin
9. Dhurrin is a
- a. Cyanogenic glycoside
 - b. Glucosinolate
 - c. Coumarin
 - d. Saponin
10. Excellent silage is characterized by
- a. 4.2-4.5 pH
 - b. Butyric acid
 - c. 10-15% ammoniacal nitrogen
 - d. Acidic taste and flavor
11. Protein source choose for making purified diets is _____
- a. Ground nut cake
 - b. Soybean cake
 - c. Casein
 - d. Blood meal
12. The Book “ The rumen and its microbes” is written by _____
- a. Morrison
 - b. McDowell
 - c. Underwood
 - d. Hungate
13. Major mineral element present in plants is _____
- a. Ca
 - b. K
 - c. P
 - d. Mg
14. Concentration of H₂SO₄ used for lignin estimation is _____
- a. 1.25%
 - b. 97%
 - c. 72%
 - d. 25%
15. Difference between NDF and ADF is _____
- a. Lignin
 - b. Cellulose
 - c. Hemicellulose
 - d. Cell contents

16. Glycine is dietary essential in ____
- Cattle
 - Sheep
 - Chicks
 - Horse
17. Saponification number indicates ____
- Chain length of the fatty acid
 - Extent of unsaturation
 - Dietary requirement
 - Concentration in feed
18. n-3 fatty acid is ____
- Stearic acid
 - Oleic acid
 - Linolenic acid
 - Palmitoleic acid
19. Rumen bacterial dry matter- Nitrogen made up of ____
- 80% Protein
 - 80% Nucleic acid
 - 20% Protein
 - 16% Protein
20. Chief cellulolytic bacteria in rumen is ____
- Lactobacillus vitulinus*
 - Megasphaera elsedenii*
 - Streptococcus bovis*
 - Bacteroides succinogenes*
21. Ribose and reduced coenzyme NADPH₂ are produced from ____
- Cori cycle
 - TCA cycle
 - Glycolytic pathway
 - Hexose monophosphate pathway
22. Number of ATPs produced from one FADH₂ molecules oxidized is ____
- 1
 - 2
 - 3
 - 4
23. The ME(Mcal) per every Kg TDN in ruminants is ____
- 1.86
 - 3.56
 - 4.56
 - 3.2
24. The polyphenolic compound of plant cell wall is ____
- Pectin
 - Cellulose

- c. Rhamnose
 - d. Lignin
25. Diets with cottonseed cake require more ____
- a. Copper
 - b. Zinc
 - c. Iron
 - d. Cobalt
26. Pericarp portion of the grain is referred as ____
- a. Pulp
 - b. Bran
 - c. Kernel
 - d. Cake
27. Heat increment is ____
- a. ME-NE
 - b. ME+NE
 - c. DE-ME
 - d. GE-DE
28. Antirachitic vitamin is ____
- a. B
 - b. C
 - c. D
 - d. A
29. Alpha Epsilon Diamino caproic acid is ____
- a. Arginine
 - b. Methionine
 - c. Lysine
 - d. Alanine
30. Urea content in urea molasses mineral block is ____
- a. 3%
 - b. 55%
 - c. 45%
 - d. 15%
31. Parakeratosis in pigs is due to the deficiency of ____
- a. Cobalt
 - b. Zinc
 - c. Manganese
 - d. Magnesium
32. The sulphur content in wool is ____
- a. 14%
 - b. 10%
 - c. 4%
 - d. 40%

33. The RDN content of urea is ____
- 50%
 - 0%
 - 100%
 - 75%
34. ME (Kcal/kg) content of broiler finisher mash is ____
- 2900
 - 2500
 - 2600
 - 2800
35. $BW^{0.75}$ is called as ____
- Empty body weight
 - Gross body weight
 - Metabolic body weight
 - Cumulative body weight
36. Blind staggers is due to the deficiency of ____
- Iron
 - Vitamin E
 - Selenium
 - Potassium
37. The gluconeogenic volatile fatty acid is ____
- Propionic acid
 - Butyric acid
 - Acetic acid
 - Caproic acid
38. ME (K cal/ kg DM) content of maize grain is ____
- 2900
 - 3600
 - 3300
 - 3000
39. The rumen protozoal population is ____
- 10^6 / ml rumen fluid
 - 10^{10} / ml rumen fluid
 - 10^{12} / ml rumen fluid
 - 10^3 / ml rumen fluid
40. Gas technique in ruminal studies was introduced by ____
- Van Soest
 - Kleiber
 - Menke
 - Blaxter
41. Factor to convert cal to joule is ____
- 4.384
 - 1.484

- c. 4.184
 - d. 8.414
- 42.** Green fodder conservation by controlled fermentation
- a. Hay
 - b. Straw
 - c. Silage
 - d. Roughage
- 43.** Antisterility factor is ____
- a. Vitamin A
 - b. Vitamin D
 - c. Vitamin E
 - d. Vitamin K
- 44.** Wheat bran is a ____
- a. Roughage
 - b. Byproduct
 - c. Mineral supplement
 - d. Protein supplement
- 45.** Which of the following is basic amino acid ____
- a. Leucine
 - b. Lysine
 - c. Glutamic acid
 - d. Alanine
- 46.** Approximate quantity of saliva secreted by large ruminant is ____
- a. 30 Litres
 - b. 150 Litres
 - c. 500 Litres
 - d. 350 Litres
- 47.** The vitamin which is not dietary essential in ruminants is ____
- a. Vitamin K
 - b. Vitamin A
 - c. Vitamin E
 - d. Vitamin D
- 48.** The ratio of energy to protein in a broiler starter diet is ____
- a. 140
 - b. 145
 - c. 122
 - d. 135
- 49.** Amino acid glycine is dietary essential in ____
- a. Swine
 - b. Cattle
 - c. Chicks
 - d. Horse

50. A feed ingredient can be considered as roughage source when it contains
- More than 25% crude fibre
 - More than 18% crude fibre
 - More than 40% crude fibre
 - More than 10% crude fibre
51. Wasting disease is due to the deficiency of _____
- Copper
 - Cobalt
 - Calcium
 - Magnesium
52. Oleic acid is _____
- Saturated fatty acid
 - Essential fatty acid
 - Unsaturated fatty acid
 - Lower fatty acid
53. Linolenic acid is _____
- poly unsaturated fatty acid
 - Saturated fatty acid
 - Lower fatty acid
 - Rich in animal fats
54. In ruminants the bloat is caused due to intake of
- Hydrocyanic acid in Tapioca pith
 - Phytosterol in Jower hay
 - Goitrogens in Mustard forage
 - Saponins in Lucerene fodder
55. Lecithine is a _____
- Glycolipid
 - Phospholipid
 - Sphingolipi
 - Steroid
56. _____ is a constituent of Lecithine
- amino aci
 - vitamin
 - suga
 - Starch
57. Precursor for vitamin D₃ is _____
- Cholesterol
 - Ergosterol
 - Menaquinone
 - Cryptoxanthine
58. Glycoside present in linseed is _____
- Linamarin
 - Ricin

- c. Cadavarine
 - d. Betaine
59. Per unit of dry matter feed intake, the unit water intake in adult cattle is
- a. 3 to 3.5
 - b. 1 to 1.5
 - c. 5 to 5.5
 - d. 7 to 7.5
60. Vitamin not having any co-enzyme form is _____
- a. Biotin
 - b. Thiamin
 - c. Choline
 - d. Ppantothenic acid
61. Factor to convert Joule to Calorie is _____
- a. 0.902
 - b. 0.239
 - c. 4.184
 - d. 0.329
62. Green fodder conservation by reducing moisture content less than 20%
- a. Hay
 - b. Straw
 - c. Silage
 - d. Roughage
63. Anti hemorrhagic factor is _____
- a. Vitamin A
 - b. Vitamin D
 - c. Vitamin E
 - d. Vitamin K
64. Shell grit is a _____
- a. Roughage
 - b. Byproduct
 - c. Mineral supplement
 - d. Protein supplement
65. Which of the following is acidic amino acid _____
- a. Leucine
 - b. Lysine
 - c. Glutamic acid
 - d. Alanine
66. Approximate quantity of saliva secreted by small ruminant is _____
- a. 30 Litres
 - b. 150 Litres
 - c. 500 Litres
 - d. 350 Litres

67. The mineral which is not dietary essential in non-ruminants is ____
- Copper
 - Iron
 - Cobalt
 - Manganese
68. The ratio of energy to protein in a layer diet is ____
- 140
 - 144
 - 122
 - 135
69. Essential amino acid exclusively for cats ____
- Alanine
 - Valine
 - Lysine
 - Taurine
70. A feed ingredient can be considered as roughage source when it contains
- More than 35% NDF
 - More than 35% crude fibre
 - Less than 18% NDF
 - Less than 18% crude fibre
71. Falling disease is due to deficiency of _____
- Copper
 - Cobalt
 - Calcium
 - Magnesium
72. Oleic acid is _____
- Octa-deca monoenoic acid
 - Octadeca dienoic acid
 - Ecosa tetraenoic acid
 - Octadeca trienoic acid
73. Linolenic acid is _____
- Octa-deca monoenoic acid
 - Octadeca dienoic acid
 - Ecosa tetraenoic acid
 - Octadeca trienoic acid
74. Lipids under go _____ in rumen
- denaturation
 - hydrogenation
 - oxidation
 - precipitation
75. Muco polysaccharide is a _____
- glycolipid
 - phospholipid

- c. sphingolipid
 - d. Glyco protein
76. _____ is a constituent of NAD
- a. Thiamin
 - b. Niacin
 - c. Riboflavin
 - d. Pyridoxin
77. Precursor for vitamin D₂ is _____
- a. Cholesterol
 - b. Terpenes
 - c. Ergosterol
 - d. Wax
78. Example for an alkaloid is _____
- a. linamarin
 - b. solanine
 - c. cadavarine
 - d. betaine
79. Anti xerophthalmic factor is _____
- a. vitamin K
 - b. vitamin D
 - c. Vitamin A
 - d. Vitamin E
80. One of the following is a co-enzyme _____
- a. Trypsin
 - b. Thiamin pyrophosphate
 - c. choline
 - d. Menadione
81. Which one of the following is maintenance form of roughage
- a. Cow pea
 - b. Paddy straw
 - c. Hybrid napier
 - d. Lucerne
82. Mineral element present in high concentration in Intracellular fluid is _____
- a. Ca
 - b. K
 - c. P
 - d. Mg
83. Concentration of H₂SO₄ used for crude fibre estimation is _____
- a. 1.25%
 - b. 97%
 - c. 72%
 - d. 25%

84. Which one of the following is a productive type of roughage ____
- Cow pea
 - Hybrid napier
 - Paddy straw
 - Grass hay
85. Which one of the following is a non maintenance type of fodder ____
- Cow pea
 - Hybrid napier
 - Lucerne
 - Paddy straw
86. n-6 fatty acid is ____
- Stearic acid
 - Oleic acid
 - Linoleic acid
 - Palmitoleic acid
87. Chief methanogenic bacteria in rumen is ____
- Lactobacillus vitulinus*
 - Megasphaera elsedenii*
 - Methanobacterium ruminantium*
 - Bacteroides succinogenes*
88. Ribose and reduced coenzyme NADPH₂ are produced from ____
- Cori cycle
 - TCA cycle
 - Glycolytic pathway
 - Hexose monophosphate pathway
89. The DE(Mcal) per every Kg TDN in ruminants is ____
- 1.86
 - 3.56
 - 4.40
 - 2.20
90. Normal molar concentration of Ac:Pro:But is ____
- 55:25:20
 - 14:21:65
 - 65:21:14
 - 75:15:10
91. Which of the following VFA is in high concentration when diet consists more concentrate
- Acetate
 - Propionate
 - Butyrate
 - Succinate
92. Which of the following VFA is in high concentration when diet consists more roughage
- Acetate
 - Propionate

- c. Butyrate
 - d. Succinate
93. Molasses content in urea molasses mineral block is ____
- a. 3%
 - b. 55%
 - c. 45%
 - d. 15%
94. The TP content of urea is
- a. 0%
 - b. 25%
 - c. 50%
 - d. 100%
95. Rumen fermentation pattern of cattle fed with monensin
- a. Increased acetate level
 - b. Increased butyrate level
 - c. Increased propionate level
 - d. Decreased propionate level
96. Gross energy minus excreta energy in poultry is
- a. Heat increment
 - b. Digestible energy
 - c. Metabolizable energy
 - d. Net energy
97. Crude protein is the product of Nitrogen content and
- a. 16
 - b. 46.5
 - c. 6.25
 - d. 2.25
98. Anti-Nutritional factor that incriminate the usage of rubber seed cake as a unconventional feed resource is
- a. Lignin
 - b. Tannin
 - c. HCN
 - d. Gossypol.
99. Crude protein requirement of broiler finisher ration in case of poultry is
- a. 23%
 - b. 16%
 - c. 20%
 - d. 24%
100. Physiological fuel value is given by
- a. Rubner
 - b. Kleiber
 - c. Morrison
 - d. Atwater

- 101.** Starch Equivalent is given by
- Blaxter
 - Armsby
 - Kellner
 - Morrison
- 102.** Which of the following proximate principles represent soluble carbohydrate
- Crude fibre
 - Crude protein
 - NFE
 - Ether extract
- 103.** Crude protein of an ideal calf starter is
- 20-23%
 - 14-16%
 - 15-17%
 - 26-27%
- 104.** Morrison feeding standard is based on
- DM
 - DCP
 - NE
 - ME
- 105.** Urea addition in concentrate mixture is
- 5%
 - 1%
 - 3%
 - 0.5%
- 106.** Biological value of milk is
- 85%
 - 60%
 - 95%
 - 70%
- 107.** The calorie protein ratio of 144 is recommended for
- Broiler starter
 - Broiler finisher
 - Layer
 - Breeder
- 108.** Lime stone is a good source of
- P
 - Ca
 - Ca and P
 - Mg
- 109.** One of the following is an Indian feeding standard
- NRC
 - BIS

- c. ARC
 - d. Morrison
110. Molasses is a rich source of
- a. Starch
 - b. Protein
 - c. Soluble sugars
 - d. Vitamins
111. The protein requirements of ruminants according to ARC (1980) are based on
- a. CP
 - b. DCP
 - c. Metabolizable protein
 - d. RDP & UDP
112. Dry matter requirement of a cattle buffalo between
- a. 4-5% of BW
 - b. 1-2% of BW
 - c. 5-6% of BW
 - d. 2-3% of BW
113. Ducks are very much susceptible to
- a. Mercury toxicity
 - b. Aflatoxicity
 - c. Pesticide toxicity
 - d. Lead toxicity
114. A forest by-product which is an unconventional energy supplement
- a. Rubber seed meal
 - b. Sal seed meal
 - c. Guar meal
 - d. Neem seed meal
115. Carbohydrate source choose for making purified diets is _____
- a. Ground nut cake
 - b. Soybean cake
 - c. Casein
 - d. Starch
116. Iodine number indicates _____
- a. Chain length of the fatty acid
 - b. Extent of unsaturation
 - c. Dietary requirement
 - d. Concentration in feed
117. Pericarp portion of the grain is rich in _____
- a. Starch
 - b. B-Complex vitamins
 - c. Lignin
 - d. Moisture

118. CP (%) concentration of swine finisher ration is
- 22
 - 20
 - 18
 - 16
119. Fasting metabolism (Kcal/Kg BW^{0.75}) in animals is ____
- 83
 - 100
 - 120
 - 135
120. Blind staggers is due to the deficiency of ____
- Iron
 - Vitamin E
 - Selenium
 - Potassium
121. Alkali disease is due to
- Deficiency of Copper
 - Deficiency of Thiamin
 - Deficiency of Selenium
 - Toxicity of Selenium
122. Crazy chick disease is due to the deficiency of
- Ca
 - Riboflavin
 - Vitamin E
 - Copper
123. Rumen bypass protein value is increased by
- Urea treatment
 - Grinding
 - Formaldehyde treatment
 - Soaking
124. Detergent system of fibre analysis is developed by
- Van Soest
 - Kleiber
 - Menke
 - Blaxter
125. Principal end product of nitrogen metabolism in birds is
- Urea
 - Uric acid
 - Ammonia
 - Nitrogen
126. Anti-Nutritional factor present in castor seed is
- Lignin
 - Tannin

- c. Ricin
 - d. Gossypol.
- 127.** EUN loss in case of Indian cattle is
- a. $0.35\text{g/KgW}^{0.75}$
 - b. $0.35\text{mg/KgW}^{0.75}$
 - c. $0.35\text{kg/KgW}^{0.75}$
 - d. $0.5\text{g/KgW}^{0.75}$
- 128.** Starch equivalent of one Kg of digestible crude fiber is
- a. 0.94
 - b. 0.95
 - c. 1.0
 - d. 1.91
- 129.** Milk replacers are introduced with rations of calves when they attain
- a. One month
 - b. One week
 - c. Three weeks
 - d. Two weeks
- 130.** Ca content of Lime stone powder is
- a. 18%
 - b. 22%
 - c. 33%
 - d. 36%
- 131.** Dry matter requirement of a buffalo weighing 400 kg and yielding 6 kg milk is
- a. 8 kg
 - b. 12kg
 - c. 10kg
 - d. 15kg
- 132.** In non-ruminants fermentation of feed/fodder takes place in
- a. Colon
 - b. Stomach
 - c. Jejunum
 - d. Caecum

KEY

Q	ANS	Q	ANS	Q	ANS	Q	ANS	Q	ANS	Q	ANS
1	a	26	b	51	b	76	b	101	c	126	c
2	b	27	a	52	c	77	c	102	c	127	a
3	d	28	c	53	a	78	b	103	a	128	c
4	c	29	c	54	d	79	c	104	b	129	b
5	c	30	a	55	b	80	b	105	c	130	d
6	b	31	b	56	b	81	c	106	c	131	b
7	d	32	c	57	a	82	b	107	c	132	d
8	a	33	c	58	a	83	a	108	b	133	
9	a	34	a	59	a	84	a	109	b	134	
10	d	35	c	60	c	85	d	110	c	135	
11	c	36	c	61	b	86	c	111	c	136	
12	d	37	a	62	a	87	c	112	d	137	
13	b	38	c	63	d	88	d	113	b	138	
14	c	39	a	64	c	89	c	114	b	139	
15	c	40	c	65	c	90	c	115	d	140	
16	c	41	c	66	d	91	b	116	b	141	
17	a	42	c	67	c	92	a	117	b	142	
18	c	43	c	68	b	93	d	118	d	143	
19	a	44	b	69	d	94	a	119	a	144	
20	d	45	b	70	a	95	c	120	c	145	
21	d	46	b	71	a	96	c	121	d	146	
22	b	47	a	72	a	97	c	122	c	147	
23	b	48	c	73	d	98	c	123	c	148	
24	d	49	c	74	b	99	c	124	a	149	
25	c	50	b	75	a	100	d	125	b	150	

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1. Anterior pituitary is embryologically developed from
 - a. Neural tube
 - b. Neural crest
 - c. Pharyngeal epithelium
 - d. None

2. The most effective stimulus for cerebral circulation is
 - a. Oxygen deficiency
 - b. Baro-receptor reflex
 - c. Decreased glucose
 - d. Excess CO₂

3. Blood clotting factors are mainly produced in
 - a. Liver
 - b. Lung
 - c. Kidney
 - d. Spleen

4. In ruminants, HCl and pepsin are produced in
 - a. Rumen
 - b. Reticulum
 - c. Omasum
 - d. Abomasum

5. Increase in one hormone level in circulation may decrease the affinity of receptor for other hormone by
 - a. Negative co-operativity
 - b. Positive co-operativity
 - c. Permission action
 - d. both b& c

6. Animal in which the body temperature varies with external temperature are called as
 - a. Temperature regulators
 - b. Temperature conformers
 - c. Heterotherms
 - d. Endotherms

7. Bulbo-urethral gland is absent in
 - a. Dog
 - b. Boar
 - c. Bull
 - d. Stallion

8. Split heat is usually observed in
- Buffalo
 - Bitch
 - Mare
 - Cow
9. Thermoregulation centre is located in
- Hypothalamus
 - Thalamus
 - Motor cortex
 - Hippocampus
10. Among the following domestic animals, sweating ability is highest in
- Cattle
 - Horse
 - Sheep
 - Goat
11. Major route of heat loss in cattle during high environmental temperature is by
- Conduction
 - Convection
 - Radiation
 - Evaporation
12. Site of formation of CSF is
- Choroid plexus
 - Astrocytes
 - Meninges
 - Sinuses
13. Type of sensory receptors involved in initiation of micturition reflex is
- Chemoreceptors
 - Nociceptors
 - Osmoreceptors
 - Stretch receptors
14. Pancreatic bicarbonate secretion is enhanced by
- Secretin
 - Motilin
 - Cholecystokinin
 - Gastrin
15. Sympathetic post-ganglionic neurotransmitter is
- Nor-epinephrine
 - Acetylcholine
 - Serotonin
 - 5-HT
16. Sertoli cells of testes secrete
- Inhibin
 - Estrogen

- c. Androgen binding protein
 - d. All of the above
17. Which one of the following circulatory division has the lowest pressure?
- a. Capillaries
 - b. Arteries
 - c. Veins
 - d. Arterioles
18. Which segment of the renal tubule is impermeable to water?
- a. Proximal convoluted tubule
 - b. Thick segment of ascending loop of Henle
 - c. Collecting duct
 - d. Thin segment of descending loop of Henle
19. Cardiac output can be represented by the formula
- a. Stroke Volume/Pulse rate
 - b. Stroke Volume – Pulse rate
 - c. Stroke Volume X Pulse rate
 - d. Pulse rate/Stroke Volume
20. During atrial systole, the ventricles are in a state of
- a. Systole
 - b. Diastole
 - c. Iso-volumic contraction
 - d. None
21. Which one of the following neurotransmitter is inhibitory in nature?
- a. GABA
 - b. Acetyl choline
 - c. Glutamic acid
 - d. Adrenaline
22. Avascular structure of eye is
- a. Cornea
 - b. Sclera
 - c. Iris
 - d. Lens
23. Among glial cells, one of the following is highly phagocytic
- a. Astrocyte
 - b. Microglia
 - c. Schwaan's cell
 - d. Oligodendrocytes
24. Gaseous exchange at tissue level is referred as
- a. Breathing
 - b. Ventillation
 - c. Internal respiration
 - d. External respiration

25. “The breeds which inhabit warm and humid regions have more melanin pigmentation than those of the same species in cooler and drier region” is
- Golger’s rule
 - Bergman’s rule
 - Allen’s rule
 - Wilson’s rule
26. Substance used to measure total body water by dye dilution technique is
- Antipyrine
 - Insulin
 - Thiosulfate
 - Inulin
27. A biological rhythm of 24 hrs duration is known as
- Ultradian rhythm
 - Circadian rhythm
 - Infra-red rhythm
 - Annual rhythm
28. Part of the brain important for smooth, accurate and coordinated movement is
- Hypothalamus
 - Cerebrum
 - Cerebellum
 - Thalamus
29. CO₂ is mainly transported in blood as
- Carbaminohemoglobin
 - Carboxyhemoglobin
 - Oxyhemoglobin
 - Bicarbonate ions
30. The substance that constitute maximally to the osmolarity inside the cells is
- Protein
 - Phosphate
 - Urea
 - Potassium
31. The term ‘Milieu interior’ was introduced by
- Cunningham
 - Boyle
 - Claud Bernard
 - Arthur C Guyton
32. S.A.Node is the pacemaker of heart because of
- Location in the right atrium
 - Neural control
 - Natural leakiness to Na⁺
 - Natural leakiness to K⁺
33. Increased vagal tone causes
- Hypertension

- b. Tachycardia
 - c. Bradycardia
 - d. Increase in cardiac output
34. The hormones secreted by group of cells which have actions on nearby cells are known as
- a. Endocrine
 - b. Autocrine
 - c. Paracrine
 - d. Neurocrine
35. Biological action of hCG is similar to that of
- a. FSH
 - b. LH
 - c. Prolactin
 - d. Inhibin
36. Zona glomerulosa mainly secretes
- a. Glucocorticoids
 - b. Mineralocorticoids
 - c. Sex steroids
 - d. None
37. Which of the following is not a protein hormone
- a. FSH
 - b. Growth Hormone
 - c. Thyroxine
 - d. Relaxin
38. The receptors for thyroid hormones are situated on
- a. Cell membrane
 - b. Cytoplasm
 - c. Nucleus
 - d. Golgi apparatus
39. Melatonin hormone is secreted by
- a. Pineal gland
 - b. Post. Pituitary
 - c. Adrenal cortex
 - d. Hypothalamus
40. Diabetes insipidus is because of deficiency of
- a. Insulin
 - b. Inulin
 - c. Insulin receptors
 - d. ADH
41. Hormone essential for let down of milk is
- a. Oxytocin
 - b. Prolactin
 - c. Placental lactogen
 - d. Thyroxine

42. The most potent mineralocorticoid is
- Cortisol
 - Aldosterone
 - Dexamethasone
 - Testosterone
43. Blood calcium level is increased by
- Calcitonin
 - Parathyroid hormone
 - Thymulin
 - Aldosterone
44. Which of the following hormones is an amino acid derivative
- Epinephrine
 - Norepinephrine
 - Thyroxine
 - All of them
45. Name the hormone, predominantly produced in response to fight, fright and flight
- Thyroxine
 - Aldosterone
 - Epinephrine
 - ADH
46. The hormone essentially required for the implantation of fertilized ovum and maintenance of pregnancy
- Progesterone
 - Estrogen
 - Cortisol
 - Prolactin
47. The precursor for the synthesis of steroid hormones is
- Acetic acid
 - Cholesterol
 - Dopamine
 - Tyrosine
48. Insulin is secreted by _____ cells of islets of langerhans
- Alpha-cells
 - Beta-cells
 - Gamma-cells
 - Delta-cells
49. Which of the following acts as second messenger?
- cAMP
 - Inositol triphosphate
 - Ca-Calmodulin
 - All of them
50. The hormone that stimulates gall bladder contraction and release of pancreatic enzymes
- Gastrin

- b. Secretin
 - c. Cholecystokinin
 - d. Pancreatic polypeptide
51. The receptors for steroid hormones are found in
- a. Cell membrane
 - b. Cytoplasm
 - c. Nucleus
 - d. Mitochondria
52. The concentration of hormone in the blood can be measured by
- a. ELISA
 - b. RIA
 - c. EIA
 - d. All of them
53. Among the following, smallest erythrocytes are found in
- a. Dog
 - b. Goat
 - c. Cattle
 - d. Poultry
54. Natural anticoagulant heparin is produced by
- a. Mast cells
 - b. Platelets
 - c. Macrophages
 - d. Band cells
55. Chief site of plasma protein synthesis
- a. Liver
 - b. Brain
 - c. lung
 - d. Intestine
56. Normal resting membrane potential of SA node
- a. -55 mV
 - b. -80mV
 - c. -90mV
 - d. -75mV
57. Pernicious anemia is due to
- a. Deficiency of Vit-B₁₂
 - b. Deficiency of cobalt
 - c. Inability to produce intrinsic factor
 - d. Deficiency of folic acid
58. S₃ and S₄ cardiac sounds are very common in
- a. Horse
 - b. Cattle
 - c. Goat
 - d. Dog

59. Erythrocytes in camel are
- Elliptical & Non-nucleated
 - Biconcave & Nucleated
 - Discoid & Non-nucleated
 - Elliptical & Nucleated
60. The conduction of cardiac impulses is highest in
- SA Node
 - AV Node
 - AV bundle
 - Purkinje Fibers
61. Ability of the cardiac muscle to generate spontaneous wave of depolarization is called
- Inotropism
 - Chronotropism
 - Staircase Phenomenon
 - Functional syncytium
62. Which of the following condition shifts the Oxygen-Hemoglobin dissociation curve to the left
- Acidic pH
 - 2, 3-Diphosphoglycerate
 - High temperature
 - Fetal Hb
63. Fick's principle is used to measure
- Arterial pressure
 - Cardiac output
 - Stroke volume
 - Venous pressure
64. Mean arterial pressure is highest in
- Poultry
 - Cattle
 - Horse
 - Dog
65. Yellow coloration of the blood plasma in horse is attributed to
- Bilirubin
 - Hemoglobin
 - Biliverdin
 - Cholic acid
66. One gram of hemoglobin binds with _____ ml of oxygen
- 4.13
 - 3.14
 - 1.34
 - 1.43
67. Largest descending tract of the spinal cord is
- Rubrospinal tract

- b. Corticospinal tract
 - c. Reticulospinal tract
 - d. Tactospinal tract
68. An example for monosynaptic reflex
- a. Withdrawal reflex
 - b. Myotatic reflex
 - c. Blink reflex
 - d. Scratch reflex
69. Silent area of the brain is
- a. Cerebellum
 - b. Cerebrum
 - c. Pons
 - d. Medulla oblongata
70. Dyslexia is caused by the lesion in the
- a. Visual sensory area
 - b. Auditory sensory area
 - c. Wernick's area
 - d. Broca's area
71. Anterograde amnesia is caused by the lesion in the
- a. Amygdala
 - b. Hypothalamus
 - c. Thalamus
 - d. Hippocampus
72. An example for amylolytic bacteria is
- a. *Bacteroides ruminicola*
 - b. *Butyrivibrio fibrisolvens*
 - c. *Ruminococcus bromii*
 - d. *Traponema bryantii*
73. Number of bacteria per gram of rumen content is higher in ruminants that are fed with
- a. Green fodder
 - b. Dry fodder
 - c. Concentrates
 - d. Hay
74. The chemical that is used for defaunation is
- a. Calcium chloride
 - b. Calcium carbonate
 - c. Calcium peroxide
 - d. Sodium chloride
75. Key intermediate of rumen carbohydrate fermentation is
- a. Butyrate
 - b. Acetate
 - c. Propionate
 - d. Pyruvate

76. Glucogenic volatile fatty acid is
- Butyric acid
 - Propionic acid
 - Acetic acid
 - Valeric acid
77. Structure involved in gaseous exchange in birds
- Airsac
 - Septum
 - Bronchi
 - Parabronchi
78. Blood volume accounts for _____ % of body weight
- 80%
 - 0.8%
 - 8%
 - 0.6%
79. Expansion of the lungs with each unit increase in transpulmonary pressure is called
- Distensibility
 - Compliance
 - Recoiling pressure
 - Elasticity
80. RMP in resting cells is due to activity of
- Na⁺-K⁺ ATPase pump
 - Voltage gated Na⁺ channels
 - Voltage gated K⁺ channels
 - Chloride channels
81. The different events that follow during the estrus cycle are
- Increased FSH, ovulation, luteinization, LH surge.
 - Luteinization, Increased FSH, ovulation, LH surge.
 - Increased FSH, LH surge, ovulation, luteinization.
 - Increased FSH, ovulation, LH surge, luteinization.
82. Blood osmotic pressure is mainly due to
- Water
 - Blood cells
 - Plasma proteins
 - None
83. Which is the highly sensory stimulus for salivary secretion?
- Taste
 - Smell
 - Vision
 - Excitement
84. A substance which increases the salivary secretion is called:
- Anhidrotic

- b. Sialogogus
 - c. Diuretic
 - d. Cholorectics
85. It is not the function of bile salts:
- a. Emulsification
 - b. Lowering the surface tension
 - c. Hydrolysis of lipids
 - d. Increasing the surface tension
86. Gibbs-Donnan effects leads to
- a. Non-diffusible ion between two sides will be equal
 - b. Diffusible ions between two sides will be equal
 - c. Equal passive diffusion
 - d. Osmotic gradient
87. The principal cation in the extracellular fluid (ECF) is
- a. Na^+
 - b. K^+
 - c. Ca^{2+}
 - d. Mg^{2+}
88. Increased GFR caused by
- a. Increased cardiac output
 - b. Afferent arteriolar vasoconstriction
 - c. Efferent arteriolar vasodilatation
 - d. Increased chloride delivery to the macula densa
89. Which of the following carbohydrate is present in seminal fluid and not produced anywhere in the body
- a. Glucose
 - b. Fructose
 - c. Ribose
 - d. Lactose
90. An ECG would be useful for determining a patient's
- a. Heart murmur
 - b. Stroke volume
 - c. Cardiac output
 - d. Blockage of conduction of electrical signal between the atria and the ventricle
91. According to the Frank-Starling mechanism of the heart
- a. The left ventricle ejects a large volume of blood with each systole than the right ventricle
 - b. The intrinsic rate of heart's pacemaker is 100 beats/min
 - c. Cardiac output increased with increased heart rate
 - d. Stroke volume increased with increased venous return
92. Retention of sodium in the body leads to a retention of
- a. Potassium
 - b. Water

- c. both a & b
 - d. neither a or b
93. During passage through the epididymis, sperms undergo
- a. Spermiogenesis
 - b. Capacitation
 - c. Acrosome reaction
 - d. Acquire motility
94. All the following hormones use cAMP as a second messenger EXCEPT
- a. Estrogen
 - b. FSH
 - c. LH
 - d. Glucagon
95. The type of placenta in bitches is
- a. Epitheliochorial
 - b. Endotheliochorial
 - c. Syndesmochorial
 - d. Haemochorial
96. The hormones secreted during non-shivering thermogenesis are
- a. Epinephrine and thyroxine
 - b. Cortisol and insulin
 - c. GH and oxytocin
 - d. Insulin and glucagon
97. Cryptorchidism means
- a. Descent of testis
 - b. Hypogonadism
 - c. Hyperfunction of testis
 - d. Undescended testis
98. Erythropoietin
- a. Contains iron
 - b. has no effect on WBC
 - c. Stimulates renin secretion
 - d. Increases half life of RBC
99. Which of the following is not increased during exercise
- a. Stroke volume
 - b. Total peripheral resistance
 - c. Systolic pressure
 - d. Heart rate
100. Iron is absorbed in
- a. Stomach
 - b. Duodenum
 - c. Jejunum
 - d. Ileum

ANSWER KEY

1	C	21	A	41	A	61	B	81	C
2	D	22	D	42	B	62	D	82	C
3	A	23	B	43	B	63	B	83	C
4	D	24	C	44	D	64	A	84	B
5	A	25	A	45	C	65	A	85	D
6	B	26	A	46	A	66	C	86	D
7	A	27	B	47	B	67	B	87	A
8	B	28	C	48	B	68	B	88	A
9	A	29	D	49	D	69	A	89	B
10	B	30	C	50	C	70	C	90	D
11	D	31	C	51	B	71	D	91	D
12	A	32	C	52	D	72	A	92	B
13	D	33	C	53	B	73	A	93	D
14	A	34	C	54	A	74	C	94	A
15	A	35	B	55	A	75	D	95	B
16	C	36	B	56	A	76	B	96	A
17	C	37	C	57	C	77	D	97	D
18	B	38	C	58	A	78	C	98	B
19	C	39	A	59	A	79	B	99	B
20	B	40	D	60	D	80	A	100	B

POULTRY SCIENCE

Dr. Krishnamurthy

1. The incubation period of Turkey, chicken, quail and duck eggs are
 - a. 28, 21, 17 or 18 and 28 respectively.
 - b. 21, 21, 17 or 18 and 26 respectively.
 - c. 28, 21, 17 or 18 and 24 respectively.
 - d. 26, 21, 17 or 18 and 30 respectively.

2. Dicalcium phosphate contains and of calcium and Phosphorous respectively
 - a. 22-23 % and 17-18 %
 - b. 22-23 % and 16 %
 - c. 24 % and 20 %
 - d. 21 % and 17-18 %

3. Perosis is caused by the deficiency of
 - a. Manganese
 - b. Choline
 - c. Both a and b
 - d. None of the above

4. In avian species incomplete urea cycle make the following amino acids as essential nutrients.
 - a. Arginine and Glycine
 - b. Methionine and Cystine
 - c. Methionine and Tryptophan
 - d. Methionine and Leucine

5. The organ that synthesizes yolk lipids and proteins.
 - a. Liver
 - b. Ovary
 - c. Uterus
 - d. Both a and c

6. The two most limiting amino acids in broiler chickens are
 - a. Methionine and Cystine
 - b. Methionine and Lysine
 - c. Methionine and Tryptophan
 - d. Methionine and Leucine

7. Common Non Starch Polysaccharides (NSP) in cereals and protein sources used in poultry diet

- a. Pentosans,
 - b. Pectins,
 - c. Beta-glucans
 - d. All the above
8. Cholesterol content of an egg is
- a. 250-270 mg
 - b. 180 mg
 - c. 200 mg
 - d. 300 mg
9. The species of Poultry most sensitive to Aflatoxin
- a. Ducks
 - b. Turkeys
 - c. Both a and b
 - d. None of the above
10. The antinutritional factors like saponins and Erucic acid are rich in
- a. Rapeseed meal
 - b. Mustard cake
 - c. Soyabean meal
 - d. Ground nut cake
11. Pullet is female of
- a. turkey
 - b. Duck
 - c. Chicken
 - d. Quail
12. Average weight (g) of egg in quail is
- a. 10
 - b. 15
 - c. 20
 - d. 29
13. Earlobe colour of black Minorca is
- a. black
 - b. Red
 - c. Yellow
 - d. White
14. Which of the following one is dual purpose breed
- a. Leghorn
 - b. Cornish
 - c. Australorp
 - d. Langshan
15. The average body temperature (⁰F) in poultry is
- a. 95
 - b. 100
 - c. 105

- d. 110
16. Age (weeks) of sexual maturity in quail is
- 6
 - 12
 - 18
 - 24
17. The number of varieties in white leghorn is
- 12
 - 6
 - 8
 - 10
18. Shell membranes are formed in which of the following organs
- Isthmus
 - Magnum
 - Infundibulum
 - Uterus
19. The type of comb in Cornish is
- Single
 - Rose
 - Pea
 - None
20. Brooding space required for chick (sq inches) is
- 28
 - 21
 - 14
 - 7
21. In which system of mating male and female are kept in separate pen
- pen mating
 - Flock mating
 - Stud mating
 - None
22. In poultry rearing out of all the cost of inputs, the maximum inputs required for
- Housing
 - Nutrition
 - Breeding
 - Brooding
23. Egg shell contributes about how much % of egg
- 11
 - 58
 - 31
 - 15
24. Age of sexual maturity in turkey is
- 18-24

- b. 24-48
 - c. 32-40
 - d. 28-32
25. In hill states which type of roof of house is preferred
- a. Straight
 - b. Corrugated
 - c. Inclined
 - d. None
26. To differentiate between fresh and old eggs this of the following is used
- a. Breakage of egg
 - b. Rotation of egg
 - c. Candling of egg
 - d. All the above
27. The layer pullet ration should starts at the age (weeks) of
- a. 20
 - b. 18
 - c. 16
 - d. None
28. The liquifaction of the albumin on storage of egg is caused by
- a. Increase in P^H of egg
 - b. Escape of CO₂ from egg
 - c. Both A and B
 - d. None
29. During majority of the incubation period the respiratory gaseous exchange takes place via
- a. shell membranes
 - b. Amnion
 - c. Yolk-sac membrane
 - d. Chorio-allantoic membrane
30. The high frequency mounting by male is sign of
- a. high fertilization capacity
 - b. More semen deposition in oviduct
 - c. Dominance of allele
 - d. All of the above
31. The day old sexing method most popular in commercial field is
- a. vent sexing
 - b. Vaginascope
 - c. Color feather sexing
 - d. None of the above
32. A hen contains on avg how many ova in the ovary
- a. 900-3600
 - b. 4000-5000
 - c. 500-900
 - d. Infinite

33. The longest portion of oviduct is
- Infundibulum
 - Magnum
 - Isthmus
 - Uterus
34. Egg albumin is secreted by
- Infundibulum
 - Magnum
 - Isthmus
 - Uterus
35. Yolk remains in the uterus for
- 10 hrs
 - 16 hrs
 - 20 hrs
 - 24 hrs
36. The number of essential amino acids recommended for poultry are
- 12
 - 9
 - 8
 - 7
37. In birds the end product of protein metabolism are
- Uric acid
 - Allantoin
 - Urea nitrogen
 - Nitrate nitrogen
38. Which is the first limiting amino acid for poultry
- Methionine
 - Cystine
 - Lysine
 - Tryptophan
39. Perosis in chicks is caused by
- Choline
 - Biotin
 - Folic acid
 - Pantothenic acid
40. How many vitamins are considered essential for chicks
- 16
 - 15
 - 14
 - 12
41. Goose stepping is caused by deficiency of
- Riboflavin

- b. Pyridoxine
 - c. Carotene
 - d. Cryptoxanthine
42. Crazy chick disease is caused by deficiency of
- a. Riboflavin
 - b. Pyridoxine
 - c. Cholecalciferol
 - d. Thiamine
43. The zoological name domestic fowl is
- a. Coturnis japonica
 - b. Phaninus colchichus
 - c. Gallus domesticus
 - d. None
44. Type of comb in poultry bird is
- a. 3
 - b. 13
 - c. 15
 - d. 8
45. The number of common colour observed in poultry birds
- a. 3
 - b. 13
 - c. 15
 - d. 8
46. In poultry female is
- a. Heterogametic
 - b. Heterozygous
 - c. Homogametic
 - d. Homozygous
47. In poultry male is
- a. Heterogametic
 - b. Heterozygous
 - c. Homogametic
 - d. Homozygous
48. Random sample poultry performance testing centre situated at
- a. Hessaraghatta
 - b. Mumbai and Guraganoh
 - c. Bhubaneswar
 - d. All of the above
49. Central duck breeding farm is situated at
- a. Hessaraghatta
 - b. Mumbai and Guraganoh
 - c. Bhubaneswar
 - d. All of the above

50. 8-18 week male known as
- Fryer
 - Roaster
 - Pullet
 - Cockrel
51. 8-18 week female is known as
- fryer
 - Roaster
 - Pullet
 - Cockrel
52. 20-40 week castrated poultry male is known as
- Chick.
 - Poult
 - Rooster
 - Capon
53. Young of turkey is known as
- chick.
 - Poult
 - Rooster
 - Capon
54. Male duck is known as
- Gander
 - Stag
 - Cock
 - Drake
55. Male goose is known as
- Gander
 - Stag
 - Cock
 - drake
56. The feathers which present in male is
- saddle (back)
 - Sickle (tail)
 - Cushion(back) & straight(tail)
 - both a and b
57. The feathers which present in female is
- saddle (back)
 - Sickle (tail)
 - Cushion(back) & straight(tail)
 - Both a and b
58. The order of molting in chickens

- a. Head, neck, body, wings, tail
- b. Head, neck, wings, body, tail
- c. Head, wings, neck, body, tail
- d. None of the above

59. Depigmentation takes place in the order of

- a. Vent –eyelids-beak-underneath toe-shank-top of toe
- b. Vent --beak -eyelids -underneath toe-shank-top of toe
- c. Vent –eyelids-beak-underneath toe- -top of toe- shank
- d. Vent --beak- underneath toe- eyelids- shank-top of toe

60. Which one is false

- a. Good layers are late molters
- b. Poor layers are slow molters
- c. Poor layers will have dirty worn-out plumage
- d. None of the above

Key											
1	a	11	c	21	c	31	c	41	a	51	c
2	a	12	a	22	b	32	a	42	d	52	d
3	c	13	a	23	a	33	b	43	c	53	b
4	a	14	c	24	d	34	b	44	d	54	d
5	a	15	c	25	c	35	b	45	b	55	a
6	b	16	a	26	c	36	a	46	a	56	d
7	d	17	a	27	a	37	a	47	c	57	c
8	a	18	a	28	c	38	a	48	d	58	a
9	c	19	a	29	a	39	a	49	a	59	a
10	a	20	d	30	d	40	b	50	d	60	c

Match the following:

1. White Cornish	Male Duck
2. Haugh Unit	Male Turkey
3. Egg shell color	Rich in lysine
4. Fish meal	Breed character
5. Body weight and egg weigh	Curled toe paralysis
6. Lysine	Albumen quality
7. Tom	Fertile egg
8. Giblet	Amino acid
9. Vitamin B12	Enlargement of sciatic nerve
10. Marek's Disease	Xanthophyll pigment
11. Soybean meal	Growth rate
12. Drake	Subabul
13. High heritability	Sex linked character
14. Riboflavin	Animal protein factor
15. Aflatoxin	Heavy breed
16. Feathering	Positively correlated
17. Yellow yolk color	Fungal metabolite
18. Mimosin	Coccidiostat
19. Bifuran	Animal protein
20. Blastoderm	Gizzard, spleen and heart
21. Aflatoxin	Salmonella sp.
22. Magnum	Perosis
23. Arachidonic acid	Vegetable oil
24. Marek's Disease	Herpes virus
25. Endotoxins	Animal fat
26. Choline	Fungal metabolite
27. Riboflavin	Adeno virus
28. Egg drop syndrome	Albumen secretion
29. Uterus	Curled toe paralysis
30. Linoleic acid	Shell formation

KEY:

(12), (7), (11), (3), (14),(2), (20), (6), (10), (17), (13), (18), (16), (9), (1), (5),(15) (19), (4), (8), (25), (26), (30), (24), (23), (21), (28), (22) , (27), (29).

III. Tick the correct statement either, TRUE OR FALSE

1. The cochin breed has feathered shanks
2. The female is heterogametic sex in Poultry
3. The skin colour in the domestic fowl is due to melanin pigment
4. Chicken have 78 numbers of chromosomes
5. Egg production is improved by combined and sire-family selection

6. The biological value of egg is higher than that of Poultry meat
7. Broiler production traits show continuous variation
8. Quantitative traits have polygenic inheritance
9. In a fresh egg, yolk is at periphery of the albumin
10. Deficiency of vitamin B₂ cause polyneuritis in chicks
11. Lime stone is used in ration to supply calcium and phosphorous
12. Lecithin is a saturated fat
13. R₂B strain of Newcastle disease vaccine is killed vaccine
14. The male of duck is called Tom
15. Male: Female ratio in layer breeders will be less than broiler breeders
16. In case of breeding males, lower beak is longer than upper beak
17. Sex in chicken is determined by males
18. High level of Zinc cause moulting
19. Carbon dioxide is essential during artificial incubation and hatching
20. Growing quail require 24% protein in starter diet
21. All meat type growing birds are feed restricted
22. Deficiency of Vitamin D₃ results in soft and pliable bones
23. Distance between pin bones is more in good layers
24. Salmonellosis has transovarian transmission
25. Ground nut cake is rich source of Arginine
26. Giriraja is a hybrid chicken
27. Yolk Colour can be determined by using Roche Colour Fan
28. Pelleting temperature of broiler feeds is 80⁰ C to 90⁰ C
29. Salmonella typhimurium causes fowl cholera
30. Naked neck breed is homozygous
31. Ochratoxin causes estrogenic syndrome
32. Vitamin A is synthesised by poultry
33. The leading duck producing state in India is Assam.
34. White Plymouth Rock is an egg type of breed
35. Bird flu is vertically transmitted
36. Geese belong to genus meleagris
37. Hatchable eggs are stored at a temperature of 32°F
38. Listeria causes fowl typhoid
39. Dubbing is the process of toe clipping
40. Fowl pox Vaccination is to be conducted at 6 weeks of age
41. Phosphorous from plant source is completely available to Poultry
42. Albumin is secreted in magnum portion of oviduct.
43. Leucosis is an egg borne disease.
44. Pullorum positive birds are identified by whole blood agglutination test.
45. Brown colour of eggshell is due to ooporphyrin pigment
46. Parrot - beak in chick embryo is due to Biotin deficiency
47. Khaki Campbell is an egg type of duck
48. In Poultry only left ovary and oviduct are functional
49. Adults act as carriers without showing any symptoms in pullorum disease
50. All birds have nucleated RBCs

Key	Question No.
True	1,2,3,4,5,6,7,18,19,20,21,22,23,24,25,26,27,28,42,43,44,45,46,47,48,49,50

False

8,9,10,11,12,13,14,15,16,17,29,30,31,32,33,34,35,36,37,38,39,40,41

LIVESTOCK PRODUCTION MANAGEMENT

Dr. Nagappa Banuvalli

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1. The key village scheme for livestock improvement was launched during
 - a. 4th five year plan
 - b. 2nd five year plan
 - c. 1st five year plan
 - d. 3rd five year plan.
2. Which of the following animal has silent heat
 - a. Buffalo
 - b. Sheep
 - c. Goat
 - d. Cow
3. The optimum age for disbudding in dairy calf is
 - a. 0 day
 - b. 4-10 days
 - c. 20-30 days
 - d. 30-40 days
4. Castration of buckling should be done at the age of
 - a. 1-2 weeks
 - b. 2-4 weeks
 - c. 6-10 weeks
 - d. 6 months
5. Hold up of milk caused by excess secretion of
 - a. Oxytocin
 - b. Progesterone
 - c. Adrenaline
 - d. Estrogen
6. Premolars and molars are
 - a. Labial Teeth
 - b. Corner Teeth
 - c. Cheek Teeth
 - d. Lateral Teeth
7. In horned cattle, the first horn ring appears at the age of _____ years and thereafter one ring is added annually.
 - a. 1
 - b. 4

- c. 2
 - d. 5
8. The canine tooth of horse is
- a. Tush
 - b. Maxilla
 - c. Sinus
 - d. Table
9. Transport vehicle should not carry more than
- a. 5
 - b. 4
 - c. 6
 - d. 7
10. The process of segregation of affected and suspected animal is known as
- a. Isolation
 - b. Quarantine
 - c. Disinfection
 - d. Selection
11. A minimum period accepted as quarantine period for all diseases is
- a. 10 -20 days
 - b. 30-40 days
 - c. 40-50 days
 - d. 20-30 days
12. Migratory livestock production system is
- a. Intensive
 - b. Semi Intensive
 - c. Extensive
 - d. All The Above
13. The roof having two slopes one overlapping the other is
- a. Lean Roof
 - b. Gothic Roof
 - c. Monitor Roof
 - d. Gable Roof
14. Long axis of the animal shed should run in the direction of
- a. East-West
 - b. South-East
 - c. North-South
 - d. North-East
15. The score card for mammary development in judging dairy cow is
- a. 18
 - b. 12
 - c. 20
 - d. 34

16. The best method of milking is
- suckling
 - knuckling
 - full hand milking
 - stripping
17. Bos Taurus is the zoological name of
- Zebu Cattle
 - Buffalo
 - Exotic Cattle
 - Crossbred Cattle
18. Early weaning of calves results shorter
- Lactation Length
 - Dry Period
 - Service Period
 - Gestation Period
19. The immunity provided by colostrums to calf is
- Active
 - Lacto-Globulin
 - Passive
 - Serum Proteins
20. Challenge feeding is usually carried
- Before Calving
 - after 15 days calving
 - at breeding
 - at drying
21. In a ideal dairy herd the ratio between Milch: Dry cow is
- 1:1
 - 2:1
 - 4:1
 - 8:1
22. The smallest and early maturing exotic dairy breed is
- Red Dane
 - Aryshire
 - Guerency
 - Jersey
23. The small breed of cattle in india is
- Malnad Gidda
 - Vechur
 - Punganuru
 - None
- 24 . The optimum dry period in cattle is (days)
- 60
 - 90

- c. 120
- d. 140

25. Average floor space required for an adult doe is

- a. 1 sq mt
- b. 2 sq mt
- c. 3 sq mt
- d. 4 sq mt

26. The only fine wool breed from southern india is

- a. Nellore
- b. Mandya
- c. Nilgiri
- d. Trichy Black

27. The heaviest breed of indigenous cattle is

- a. Dangi
- b. Amrith Mahal
- c. Kankrej
- d. Vechur

28. The floor space required for bull in covered area is

- a. 10 m sq
- b. 12 m sq
- c. 14 m sq
- d. 16 m sq

29. Central Institute of Research on goat is located at

- a. Avikanagar
- b. Karnal
- c. Izatnagar
- d. Makhdoom

30. Goat meat is known as

- a. Mutton
- b. Buffen
- c. Veal
- d. Chevon

31. The famous small goat for meat is

- a. Barbari
- b. Angora
- c. Chegu
- d. Black-Bengal

32. The term used to remove the uneconomical animal from the herd is known as

- a. Breeding
- b. Feeding
- c. Weeding
- d. Heeding

33. Permanent method of identification in cattle is
- Branding
 - Tagging
 - Tattooing
 - None
34. As Per 2007 census the total cattle population (million) in India is
- 199.08
 - 105.34
 - 11.13
 - 71.56
35. Which one of the following is dual purpose exotic sheep breed
- Merino
 - Southdown
 - Corriedale
 - Dorset
36. Zoological Nomenclature of goat is
- Bos indicus*
 - Ovis aries*
 - Bos frontalis*
 - Capra hircus*
37. In commercial pig farming the ideal FCR should be
- 1:2-2.5
 - 1:3-3.5
 - 1:4
 - 1:8
38. The weaning age (week) in piglet is
- 4
 - 6
 - 8
 - 12
39. The age (week) of castration in piglet is
- 1-2
 - 3-4
 - 6-7
 - 7-8
40. Time of foal heat after foaling is
- 2-3 days
 - 4-5 days
 - 7-8 days
 - 9-11 days
41. Bleating is the sound produced by
- Cattle
 - Buffalo

- c. Pig
 - d. Goat
42. The twin and triplet births are very common in
- a. Cattle
 - b. Buffalo
 - c. Sheep
 - d. Goat
43. Gaddi is the breed of
- a. Sheep
 - b. Goat
 - c. Both a and b
 - d. None
44. Common cause for heavy neonatal mortality in calves due to
- a. Calf scours
 - b. Anaemia
 - c. Tetanus
 - d. None
45. Average weaning age of goat is
- a. 45 days
 - b. 60 days
 - c. 75 days
 - d. 90 days
46. Lola is the synonym of which Indian cattle breed
- a. Sahiwal
 - b. Red Sindhi
 - c. Gir
 - d. Tharparkar
47. As per time motion studies, what percentage of the labour time is spent behind the dairy Cow
- a. 25%
 - b. 50%
 - c. 60%
 - d. 75%
48. Methods of drying off dairy cows
- a. Incomplete milking
 - b. Intermittent milking
 - c. Complete cessation of milking
 - d. All the above
49. Central Institute for Research on Buffaloes is located at
- a. Karnal
 - b. Izatnaar
 - c. Hisar
 - d. Bikaner

50. National Research Centre on Yak is located at
- Delhi
 - Medziphema
 - Srinagar
 - Dirang
51. Sub-Order Artiodactyla refers to
- Even-toed ungulates
 - Odd-toed ungulates
 - Carnivores
 - Pouched mammals
52. Cross between a male horse and female ass is
- Jennet
 - Honkey
 - Hinny
 - Mule
53. The first farm animal to be domesticated was
- Pig
 - Sheep
 - Cow
 - Horse
54. The number of agro-climatic zones of India as per the ICAR are
- 5
 - 10
 - 15
 - 20
55. Act of mating in sheep
- Tupping
 - Coupling
 - Covering
 - Eweing
56. One of the best dual-purpose breeds of India is
- Amritmahal
 - Hariana
 - Bachaur
 - Kangayam
57. Jamaica Hope dairy breed was evolved using
- HF & Kankrej
 - Jersey & Kankrej
 - HF & Sahiwal
 - Jersey & Sahiwal
58. The first Military Dairy Farm was started in India at
- Bangalore

- b. Nasik
- c. Secunderabad
- d. Allahabad

59. The buffalo breed evolved out of crossing Surti and Murrah

- a. Mehsana
- b. Jaffarabadi
- c. Nili Ravi
- d. Nagpuri

60. Avikalin breed of sheep was evolved using Rambouillet and

- a. Nali
- b. Sonadi
- c. Malpura
- d. Chokla

61. Pashmina fibre is produced from which goat breed

- a. Osmanabadi
- b. Angora
- c. Chegu
- d. Angora

62. During the initial period, whole milk is fed to calves at the rate of

- a. 15% of body weight
- b. 10% of body weight
- c. 20% of body weight
- d. 30 % of body weight

63. Gestation period in mares is about

- a. 340 days
- b. 370 days
- c. 280 days
- d. 310 days

64. Milking in cattle should be completed within

- a. 5-7 minutes
- b. 2-3minutes
- c. 10-15 minutes
- d. 4-5 minutes

65. Height of guard rails above the floor of the farrowing pen should be

- a. 15 cm
- b. 25 cm
- c. 35 cm
- d. 45 cm

66. Height of inner wall of manger/water trough for sheep & goats as per ISI Standards is

- a. 35cm
- b. 45cm
- c. 55cm
- d. 65 cm

67. Amount of milk remaining in the udder after a normal milking is called
- Free milk
 - Fore-milk
 - Residual milk
 - Persistent milk
68. Ear notching is commonly used to mark
- Sheep
 - Cattle
 - Poultry
 - Pigs
69. Superior carpet wool breeds are
- Gaddi
 - Rampur Bushair
 - Poonchi
 - All the above
70. Merino breed of sheep originated in
- Australia
 - Spain
 - Russia
 - America
71. The important dual-purpose breed imported in India is
- Merino
 - Suffolk
 - Corriedale
 - Southdown
72. The tallest breed of sheep in India is
- Deccani
 - Nellore
 - Rampur Bushair
 - Mandya
73. National Research Centre on Camel is located at
- Jaipur
 - Hisar
 - Karnal
 - Bikaner
74. An indigenous horse breed are
- Marwari
 - Kathiawari
 - Spiti
 - All the above
75. Maximum milk fat percentage is found in
- Fore-milk

- b. Milk drawn during middle of milking
- c. Last drawn milk
- d. Uniform throughout milking

76. In the world buffalo population, Indian buffalo population (%)

- a. 57
- b. 67
- c. 77
- d. 47

77. Adult male cattle is

- a. Ram
- b. Bull
- c. Buck
- d. Stallion

78. Buffalo belongs to the species

- a. Bubaline
- b. Equine
- c. Caprine
- d. Bovine

79. Adult male sheep is

- a. Boar
- b. Bullock
- c. Buck
- d. Ram

80. Young female goat

- a. Ewe
- b. Goatling
- c. Heifer
- d. Gilt

81. The sound produced by cattle

- a. Grunting
- b. Bellowing
- c. Bleating
- d. None

82. Act of mating in goat

- a. Serving
- b. Coupling
- c. Covering
- d. Tapping

83. Poll is the point on the head between the

- a. Ears
- b. Horns
- c. Eyes
- d. All the above

84. The number of incisors in the upper jaw of cattle is
- 0
 - 6
 - 8
 - 10
85. Teeth which are present at birth
- Middle teeth
 - lateral teeth
 - deciduous teeth
 - central teeth
86. The highest point of the roof is
- Ridge
 - Eave
 - Overhang
 - Span
87. Lyre horned grey cattle with white forehead
- Kankrej
 - Ongole
 - Kangayam
 - Rathi
88. Sheep breed with high prolificacy
- Garole
 - Mandya
 - Nilgiri
 - Nellore
89. Horn pattern of Jaffrabadi
- Sickle
 - Drooping
 - Sword
 - Coiled
90. Which is a hill type cattle breed
- Ponwar
 - Khillari
 - Nimari
 - Rathi
91. Breed of cattle from Kerala
- Vechur
 - Punganur
 - Rathi
 - All the above
92. Under Indo-Swiss project in Kerala, the breed evolved is
- Sunandini

- b. Frieswal
 - c. Jesrsindh
 - d. Karan-Swiss
93. Landrace is a breed of
- a. Cattle
 - b. Sheep
 - c. Pig
 - d. Horse
94. Avivastra is a
- a. Research Center
 - b. Award
 - c. New Sheep Breed
 - d. New Goat Breed
95. The home tract of Murrah buffalo is
- a. Delhi
 - b. Rohtak
 - c. Etawa
 - d. Jodhpur
96. Buffaloes are normally classified into
- a. Milch/Draught
 - b. Dual/ Milch
 - c. Milch/Meat
 - d. Water/ Swamp
97. The wild ancestor of the present sheep breeds
- a. *Ovis orientalis vignei*
 - b. *Capra hircus*
 - c. *Ovis aries*
 - d. None
98. New Zealand White is a breed of
- a. Pig
 - b. Goat
 - c. Rabbit
 - d. Cattle
99. The breed evolved by crossing American Brown Swiss bulls with Sahiwal and Red Sindhi cows at NDRI, Karnal
- a. Sunandini
 - b. Karanfries
 - c. Frieswal
 - d. Karanswiss
100. Coimbatore breed of sheep is a
- a. Coarse carpet wool breed
 - b. Hairy breed
 - c. Meat type breed

- d. Fine wool breed
101. Exotic fine wool sheep breed
- Lincoln
 - Merino
 - Dorset
 - Corridale
102. Other name of Barbari goat
- Guinea goat
 - Wild goat
 - Hill goat
 - Bengal goat
103. A pelt sheep breed
- Merino
 - Dorset
 - Ramboulliet
 - Karakul
104. Wall eyes is the peculiarity of the
- Nili-Ravi
 - Murrah
 - Jaffarabadi
 - Surti
105. Breed of buffalo known as 'Panchakalyani'
- Murrah
 - Jaffarabadi
 - Meshana
 - Nili-ravi
106. Lactation yield is calculated for (days)
- 270 days
 - 360 days
 - 305 days
 - 400 days
107. Gestation period for cattle
- 100-113 days
 - 240 days
 - 270-285 days
 - 90 days
108. Calving interval is equal to
- Lactation period + service period
 - Gestation period + dry period
 - Lactation period + dry period
 - None of the above
109. A group of animals having similar characters transmitted through generations

- a. Breed
- b. Genus
- c. Family
- d. Phylum

110. Optimum service period for cattle is

- a. 60 days
- b. 90 days
- c. 120 days
- d. 150 days

111. A milch cow may be fed (concentrate) at the rate of

- a. 1 kg for every 2.0 kg of milk produced
- b. 1 kg for every 2.5 kg of milk produced
- c. 1.5 kg for every 2.0 kg of milk produced
- d. 1.5 kg for every 2.5 kg of milk produced

112. First faeces voided by a new born calf is called

- a. Mucine
- b. Muconium
- c. Flem phlum
- d. Mucous

113. The method of feeding followed in high yielding dairy cows to produce the maximum.

- a. Complete feeding
- b. Flushing
- c. Creep feeding
- d. Challenge feeding

114. Desirable body weight of heifer at first breeding should be

- a) 180 kg
- b) 250 kg
- c) 400kg
- d) 80 kg

115. Floor space requirement for cow in covered area as per BIS standard is

- a. 3.5 meter square
- b. 4.5 meter square
- c. 5.5 meter square
- d. 6.5 meter square

116. Indian cattle maintain body temperature through

- a. Hairs
- b. Tongue
- c. Dewlap
- d. Tail

117. Dry matter requirement is highest for

- a. Sheep
- b. Cattle

- c. Goat
- d. Pig

118. Chemical removal of burr is known as

- A. Carbonization
- b. Skirting
- c. Sorting
- d. Scouring

119. One of the wool grading systems

- a. Blood system
- b. Skirting
- c. Combing
- d. Sorting

120. The annual culling rate in a dairy unit is

- a. 25%
- b. 35%
- c. 45%
- d. 5%

KEY	
1	c
2	a
3	b
4	b
5	c
6	c
7	c
8	a
9	c
10	a
11	b
12	c

13	a
14	a
15	d
16	c
17	c
18	c
19	c
20	a
21	b
22	d
23	c
24	a
25	c
26	c
27	c
28	b
29	d
30	d
31	d
32	c
33	a
34	a
35	c
36	d

37	b
38	c
39	b
40	d
41	d
42	d
43	c
44	a
45	d
46	a
47	a
48	d
49	c
50	d
51	a
52	a
53	b
54	c
55	a
56	b
57	d
58	d
59	a
60	a

61	c
62	b
63	a
64	a
65	b
66	a
67	c
68	d
69	d
70	b
71	c
72	b
73	d
74	d
75	c
76	a
77	b
78	a
79	d
80	b
81	a
82	d
83	b
84	a

85	c
86	a
87	a
88	a
89	d
90	a
91	a
92	a
93	c
94	c
95	a
96	d
97	a
98	c
99	d
100	c
101	b
102	a
103	d
104	a
105	a
106	c
107	c
108	c

109	a
110	a
111	b
112	b
113	d
114	b
115	a
116	c
117	c
118	a
119	a
120	d

VETERINARY AND ANIMAL HUSBANDRY EXTENSION EDUCATION

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- 1 Agriculturism is the characteristic feature of
 - a Rural society
 - b Tribal society
 - c Urban society
 - d Metro society

- 2 An example of primary group
 - a Tea club
 - b University
 - c Dairy Cooperativesociety
 - d Family

- 3 Which of the following is a formal institution?
 - a CharhcaMandal
 - b BhajanaMandal
 - c School
 - d Tea shop

- 4 Superstition is more in
 - a Urban society
 - b Rural society
 - c Tribal society
 - d Metro Society

- 5 Father of Sociology
 - a Adam Smith
 - b August Comte
 - c A.R.Desai
 - d Aristotle

- 6 Study of the laws of the structure and functions of the rural society is known as
 - a Sociology
 - b Human Sociology
 - c Rural Sociology
 - d None of the above

- 7 The science of Rural Sociology studies
 - a Rural people
 - b Problems of the rural people
 - c Rural social organizations
 - d All of the above

- 8 Tendency of the people to think of their culture as best is known as
 - a Egoism
 - b Ethnocentrism

- c Ethno medicine
- d All of the above

9 Socially prescribed forms of behaviour, transmitted by traditions and enforced by social disapproval of its violation is called as

- a Culture
- b Norms
- c Mores
- d Taboos

10 Prohibition of vaccination of animals against Foot and Mouth Disease due to some misbelief is an example

- a Culture
- b Norms
- c Mores
- d Taboos

11 An example for covert culture is

- a Dress
- b Industrial Products
- c Folk ways
- d Attitudes

12 Which of these factors play role in social change

- a Geographic
- b Economic
- c Political
- d All of the above

13 In Which of the following roles, Veterinarian acts as a change agent

- a Veterinary doctor treating animals in the hospital
- b Veterinarian as a scientist
- c Veterinarian as a Extension Education specialist
- d None of the above

14 Which of the following is an example for Technological factor of social change

- a ArtificialIn semination
- b Floods
- c GovernmentSchemesprovidingsubsidies toArtificialInsemination
- d Dairy Co-operative movement

15 Which of the following phrase aptly apply to Extension Education?

- a Continuous Process
- b Educative process
- c Two wayProcess
- d All of the above

16 Extension is learning by doing while seeing is

- a Learning
- b Explaining
- c Believing
- d Convincing

17 Extension education is a/an

- a Basic science

- b Applied Science
- c Pure Science
- d Not a Science

18 The difference between 'what is' and 'what is ought to be' is called as

- a Problem
- b Need
- c Wealth
- d Constraint

19 The expression of the ends towards which the efforts are directed is

- a Goal
- b Need
- c Problem
- d Scarcity

20 The process by which a person becomes changed in his behaviour through self activity

- a Attention
- b Objective
- c Learning
- d Teaching

21 First step in extension teaching process

- a Satisfaction
- b Affection
- c Attention
- d Concentration

22 Extension is

- a Non formal Education
- b Informal Education
- c Formal Education
- d Adult Education

23 Extension education is

- a Helping people
- b Giving money to people
- c Helping people to help themselves
- d None of the above

24 Etawah pilot project was started in the year

- a 1948
- b 1958
- c 1951
- d 1947

25 Shantiniketan was started by

- a Mahatma Gandhi
- b Ravindranath Tagore
- c S.K. Dey
- d Bankim Chandra Chatterjee

26 Gurgaon experiment was initiated by

- a Albert Mayor
- b F.L.Bryne
- c S.K.Dey
- d Spencer Hatch

27 The term extension was formally first introduced in 1873 by

- a Oxford university
- b Cambridge university
- c Karnataka university
- d Delhi university

28 Firka development scheme was started in Madras state during

- a 1919
- b 1921
- c 1943
- d 1947

29 Community Development Programme was started in the year

- a 1952
- b 1985
- c 1945
- d 1955

30 Community Development lays more emphasis on

- a Assistance from Government
- b People's participation
- c Guidance by political leaders
- d Assistance from International agencies

31 Main aim of Community Development Programme is to

- a Give money to people
- b Develop poor people
- c Develop rich people
- d Overall development of the people

32 Main objective/s of the Community Development is / are

- a To assist in building good panchayats, co-operatives and schools
- b Provide minimum health services
- c Providing recreational facilities
- d All of the above

33 Person overseeing the Community Development activities at block level was

- a Deputy Commissioner
- b Assistant Commissioner
- c Block Development Officer
- d Gram Sevak

34 Which of the following is not a group teaching method?

- a Meeting
- b Buzz session
- c Cinema
- d Circular letter

35 Ideal method for showing the poultry farmers how to mix a medicine in water

- a Method Demonstration
- b Result Demonstration
- c Home Visit
- d Office Call

36 An example for audio aid

- a Television
- b Radio
- c News Paper
- d Drama

37 Television is

- a Audio aid
- b Visual aid
- c Audio-visual aid
- d Individual aid

38 Which of the following is an example for individual contact method

- a Television
- b News Paper
- c Circular letter
- d Home visit

39 Most appropriate teaching method during disease outbreak is

- a Campaign
- b Television show
- c Health camps
- d Home visit

40 Cone of experience was developed by

- a J.P. Legans
- b Daniel
- c A.T. Mosher
- d Edger Dale

41 An important limitation of Radio is

- a Less coverage
- b High Cost
- c One way communication
- d Not understandable

42 Which of the following extension teaching method is best for all conditions

- a Individual
- b Group
- c Mass
- d Combination of all the above

43 Which of the following is not an example of projected teaching aid

- a LCD
- b OHP
- c Slide Projector
- d Poster

44 To capture the milk market of four metropolitan cities is one to the objective of operation flood phase

- a I

- b II
- c III
- d IV

45 The per capita availability of milk per day in India as on 2003 was

- a 210g
- b 220g.
- c 190g.
- d 280g.

46 India stands at _____ place in regard to goat population in the world

- a 1st
- b 2nd
- c 3rd
- d 4th

47 Organisation at national level to promote trade of egg

- a Egg Cooperative Society
- b Poultry Development Board
- c National Egg Co-ordination Committee
- d National Dairy Development Board

48 National Dairy Development Board (NDDB) is located at

- a New Delhi
- b Karnal
- c Anand
- d Kolkata

49 The state of India having highest production of milk

- a UttarParadesh
- b Madhya Pradesh
- c Punjab
- d Karnataka

50 An example for non-perishable dairy product

- a Cream
- b Butter
- c Milk Powder
- d Curd

51 Highest egg production state in the country

- a Karnataka
- b Tamil Nadu
- c Uttarpradesh
- d Andhra Pradesh

52 Market risks are due to

- a Loss of Product
- b Destruction of product
- c Change in the price of product
- d Both a and b

53 Quinquennial census conducted for livestock in India is conducted once in every

- a Year
- b 10 years

- c 5 years
- d 2 years

54 The stage in programme planning which follows the stage of evaluation is

- a Reevaluation
- b Analysis of situation
- c Reconsideration
- d Appraisal

55 Key village scheme was started in the year

- a 1951
- b 1952
- c 1947
- d 1945

56 SGSY was launched in the year

- a 1999
- b 2007
- c 2002
- d 2005

57 Farmer having less than 1 hectare of dry land only is classified as

- a Small Farmer
- b Marginal Farmer
- c Large Farmer
- d Landless Labourer

58 A crash programme providing various inputs into dairy farming besides A.I. Service intended to crossbred non-descript cattle in the milk shed areas was

- a Key Village Scheme
- b IRDP
- c ICDP
- d Goshalas

59 Segregated, old, infirm and unproductive cattle are maintained in

- a Goshalas
- b Gosadans
- c Milk Sheds
- d Village Pastures

60 The principle of co-operation implies that non-alignment to any political body and observance of neutrality are the fundamental aspects to be observed in a co-operative society comes under the principle of

- a Economic Independence
- b Political Neutrality
- c Cultural Neutrality
- d Cultural Dependence

61 The second tier in the dairy co-operative organization is

- a Primary Milk Producers' Co-operative Society
- b District Milk Union
- c State Milk Federation
- d NDDB

62 At state level, the milk co-operatives are governed by

- a Primary Milk Producers' Co-operative Society
- b District Milk Union
- c State Milk Federation
- d NDDB

63 Architect of White revolution in India

- a Tribhuvandas Patel
- b Verghese Kurien
- c Sardar Vallabh Bhai Patel
- d Balwantraji Mehta

64 Maintenance of rural veterinary institutions is looked after by

- a Taluka Panchayat
- b Gram Panchayat
- c Zilla Panchayat
- d State Government

65 In the word democracy, 'cracy' means 'rule of' and 'demos' means

- a Demons
- b People
- c King
- d Army

66 The first state to implement panchayati Raj

- a Andhra Pradesh
- b Rajasthan
- c Haryana
- d Karnataka

67 The president of the Zilla Panchayat is elected by

- a Members of Zilla Panchayat
- b Presidents of Taluka Panchayats
- c MLAs
- d MPs

68 The committee that recommended Panchayati Raj was headed by

- a Tribhuvandas Patel
- b Verghese Kurien
- c Sardar Vallabh Bhai Patel
- d Balwantraji Mehta

69 Village water supply is the main function of

- a Gram panchayat
- b Taluka panchayat
- c Zilla panchayat
- d All of the above

70 Gram sabha should meet at least once in

- a A year
- b Six months
- c Three months
- d A month

71 The present chairman of Planning Commission

- a Montek Singh Ahluwalia

- b Manmohan Singh
- c Atal Bihari Vajpayee
- d P.Chidambaram

72 Outline of activities so arranged so as to enable effective execution of programme is called as

- a Programme Cycle
- b Span of work
- c Plan of work
- d Evaluation

73 Duration of XI five year plan

- a 1992-97
- b 1997-
- c 2002-
- d 2007-12

74 Judging the effectiveness of the programme is called as

- a Analysis of situation
- b Reconsideration
- c Selection of Problems
- d Evaluation

75 Programme planning is a

- a Rigid process
- b Flexible process
- c Both a & b
- d None of the above

76 Most common type of farming in India

- a Mixed
- b Specialized
- c Diversified
- d Individual

77 Basic unit in 'Anand pattern' of dairy co-operatives

- a Dairy cooperative society
- b Milk union
- c Milk federation
- d Farmer's family

78 Highest per capita availability of milk in India is in the state of

- a Punjab
- b Karnataka
- c Maharashtra
- d Haryana

79 First phase in programme development cycle

- a Developing blueprint
- b Reconsideration
- c Collection of facts
- d Developing plan

- 80 Basic unit in Panchayat Raj system is
- a Gram Panchayat
 - b Taluka Panchayat
 - c Zilla Panchayat
 - d Block samithi
- 81 Highest milk producing country in the world
- a India
 - b USA
 - c Canada
 - d Australia
- 82 Duration of X five year plan
- a 2007-2012
 - b 2006-2011
 - c 2005-2010
 - d 2002-2007
- 83 Last phase in programme development cycle
- a Developing blueprint
 - b Reconsideration
 - c Collection of facts
 - d Developing plan
- 84 Chairman of Gram Panchayat is elected by
- a Directly by the villagers
 - b By the members of the Gram Panchayat
 - c Members of the Taluk Panchayat
 - d Members of the dairy co-operative society
- 85 Concept of multipurpose village level worker was first introduced in
- a Etawah Pilot project
 - b Gurgaon experiment
 - c Nelokheri attempt
 - d Sevagram attempt
- 86 Which of the following is an example for organized market?
- a A village sandy
 - b APMC
 - c Milk vendors
 - d All
- 87 An area covering a group of continuous village having a population of thousand cows and buffaloes is known as
- a ICDP block
 - b Key village block
 - c Milk union
 - d Breeding unit
- 88 ICDP was started in the year
- a 1965
 - b 1980
 - c 1975
 - d 1999
- 89 Duration of operation flood – I

- a 1970-81
- b 1980-90
- c 1978-85
- d 1947-52

90 An example for co-operative society is

- a Village agricultural co-operative
- b Dairy cooperative society
- c Oil seed growers' cooperative society
- d All

91 First agricultural university in India was started at

- a Pantnagar
- b Izzatnagar
- c Palampur
- d Bangalore

92 First chairperson of NDDB

- a Amrita Patel
- b Tribhuvandas Patel
- c Verghese Kurien
- d Vallabh Bhai Patel

93 Present chairperson of NDDB

- a Amrita Patel
- b Tribhuvandas Patel
- c Verghese Kurien
- d Vallabh Bhai Patel

94 Present union minister of Rural Development

- a C.P. Thakur
- b C.P. Joshi
- c Manishankar Iyer
- d P. Chidambaram

95 MMPO was launched in the year

- a 1992
- b 1999
- c 2007
- d 2002

96 Mother dairies are operated by

- a NECC
- b NDDB
- c AMUL
- d Central government

97 The type of farming in which crop production is combined with livestock farming is known as

- a Specialised farming
- b Mixed farming
- c Co-operative farming
- d Diversified farming

- 98 The first KVK was established in
a Pantnagar
b Pondicherry
c Chennai
d Bareilly
- 99 The information for evaluation can be collected at
a Initial stage
b Intermediary stage
c Final stage
d At all stages
- 100 Outline of activities arranged chronologically is called as
a Plan of work
b Calendar of work
c Outline of work
d Work sheet
- 101 Most ideal method to teach the dairy farmers about clean milk production is
a Method demonstration
b Result demonstration
c Frontline demonstration
d National demonstration
- 102 An intensive teaching activity undertaken at an opportune time for a brief period of time, focusing attention in a concerted manner towards a particular problem so as to stimulate widest possible interest in the community
a Propaganda
b Publicity
c Campaign
d Animal health camp
- 103 A form of social change which is thought to occur due to predetermined blind forces of nature, fate or divine province is called as
a Pendular change
b Evolutionary change
c Unlinear change
d None of the above
- 104 Which of these is / are characteristics of social change
a Universal phenomenon
b Speed of change varies
c Law of nature
d All of the above
- 105 Interpersonal relations are more informal in
a Rural society
b Urban society
c Cosmopolite society
d Tribal society
- 106 Which of the following is not a step in extension teaching
a Satisfaction
b Desire
c Interest
d Compulsion

- 107 Guragoan attempt was initiated by
- a Alberti Mayor
 - b F.L Bryne
 - c S.K.Dey
 - d Vinoba Bhave
- 108 Which of the following is an author of the book on Veterinary / Animal Husbandry Extension
- a O.P. Dahama
 - b Adivi Reddy
 - c Peru Mathiyalagan
 - d G.L.Ray
- 109 To show worth of a new feed formulation to the farmers, effective teaching method is
- a Method demonstration
 - b Result demonstration
 - c Farm visit
 - d Group discussion
- 110 Education status is higher in
- a Rural Society
 - b Urban society
 - c Tribal society
 - d Nomadic society
- 111 Coefficient of correlation ranges from
- a 1 to 2
 - b 0 to 1
 - c -1 to + 1
 - d 0 to infinity
- 112 The test of choice for comparing two variances is
- a F-test
 - b Chi-square
 - c Z – test
 - d t – test
- 113 A statistical test used to compare two group means in small sample is known as
- a ANOVA
 - b Chi-square
 - c Z – test
 - d t – test
- 114 In large samples, comparing the means of two groups, test statistic that can be used is
- a ANOVA
 - b Chi-square
 - c Z – test
 - d t – test
- 115 Tabulation is the process of arranging data into
- a Row and columns
 - b Tables
 - c Classes and tables
 - d Both a & b.

116 Karl Pearson method is used in

- a Z-test
- b Correlation coefficient
- c F – test
- d DMR – test

117 In testing of hypothesis, if the calculated value is greater than that of table value, then null hypothesis is

- a Accepted
- b Rejected
- c Revised
- d None

118 The precision of experiment can be increased by

- a Increasing number of
- b Decreasing number of
- c Increasing number of
- d Decreasing number of treatments treatments replications replications

119 Median of milk production from cattle can be depicted by

- a Pie diagram
- b Frequency curve
- c Cumulative frequency curve
- d None

120 Most frequently occurring value in a series is called as

- a Mean
- b Median
- c Mode
- d None

ANSWER KEY

- 1 a 31 d 61 b 91 a
- 2 d 32 d 62 c 92 c
- 3 c 33 c 63 b 93 a
- 4 c 34 c 64 b 94 b
- 5 b 35 a 65 b 95 a
- 6 c 36 b 66 b 96 b
- 7 d 37 c 67 a 97 b
- 8 b 38 d 68 d 98 b
- 9 b 39 a 69 a 99 d
- 10 d 40 d 70 b 100 b
- 11 d 41 c 71 a 101 a
- 12 d 42 d 72 c 102 c
- 13 c 43 d 73 d 103 c
- 14 a 44 b 74 d 104 d
- 15 d 45 b 75 c 105 a
- 16 c 46 a 76 a 106 d
- 17 b 47 c 77 a 107 b
- 18 b 48 c 78 a 108 c
- 19 a 49 a 79 c 109 b
- 20 c 50 c 80 a 110 b
- 21 c 51 d 81 a 111 c
- 22 b 52 c 82 d 112 a
- 23 c 53 c 83 b 113 d
- 24 a 54 c 84 b 114 c

25 b 55 a 85 a 115 d
26 b 56 a 86 b 116 b
27 b 57 b 87 b 117 b
28 c 58 c 88 a 118 a
29 a 59 b 89 a 119 c
30 b 60 b 90 d 120 c
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VETERINARY AND ANIMAL HUSBANDRY EXTENSION EDUCATION

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1 Extension literally means

a Stretching

out

b Talking with c Deciding for d Thinking about

2 The father of demonstration in Extension is

a Seamann

Knapp

b Robert Chambers c G D Thorde d James Stewart

3 Extension can be considered as

a Service b Profession c Discipline d All the above

4 Farmers first model was proposed by

a A Reddy b R Chambers c Van den Ban d R M Rogers

5 The basic unit of Extension work is

a Individual b society c family d Community

6 An extension worker is a

a Professiona

l leader

b Lay leader c Local leader d Voluntary leader

7 The last stage in extension education process is

a Evaluation b Reconsideration c adoption d Teaching

8 The steps in extension teaching was put forward by

a Paul

Leagens

b Curt Lewin c Ensminger d Wilson& Galup

9 'People learn more rapidly and permanently when the learning experience is pleasant or enjoyable' relates to

a Law of

readiness

b Law of exercise c Law of effect d Law of belonging

10 Learning should make sense to the learners

a Principle of

readiness

b Principle of clarity c Principle of

practice

d Principle of timing

11 'The cone of experience was developed by

a Edger Dale b Berlo C K c Kuldeep Nair d S C Parmer

12 The extension worker tells about the varieties characters to a farmer, the farmer learns by

a Abstraction b Learning c Intelligence d Questioning

13 Farm and Home visit is classified under

a Individual

contact

b Group Contact c Mass Contact d None

14 To show relative worth of a new practice, the extension method best suited is

a Result
demonstration

b Method
demonstration

c Campaign d Group discussion

15 The method used when the farmers is not there in the field while the extension worker make a visit:

a Farm and
Home visit

b Method
demonstration

c Result
demonstration

d Flag method

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16 A systematic display of models, specimens, etc. in a sequence around a theme:

a Exhibition b Farmers fair c demonstration d campaign

17 A body of general principles or laws of a field of knowledge:

a Objectives b Philosophy c Mandate d principle

18 The most preferred approach in extension work is

a Autocratic b democratic c Lessiz fair d None

19 The difference between what is and what ought to be

a need b aim c goal d Objective

20 A blue print for action is

a plan b Programme c Objective d Project

21 The extension programme is a statement of

a Situation
and
objective

b Solution and
problems

c Problems and
solutions

d All the above

22 Measuring performance against predetermined goals is called

a Manageme
nt

b Evaluation c Measurement d Supervision

23 The technique used for projects involving activities of non-repetitive nature is

a CPM b WBS c PERT d PRA

24 The person considered as father of PRA

a Neils
Rolling

b Robert Chambers c Van den Ban d Paul Leagans

25 The collection of data in RRA is based on

a Extension
workers

b Multidisciplinary
team

c Research
scientists

d Progressive
farmers

- 26 The general micro-unit of an agro-ecosystem
a District b Village c Farmer d Household
- 27 ATMA operates at
a block level b District level c state level d National level
- 28 The apex training institute at state level to give training support to ATMA
a MANAGE b EEI c CAPART d SAMETI
- 29 The first KVK was established in
a Calcutta b Mumbai c Coimbatore d Pondicherry
- 30 The extension service in USA is called
a NES b Extension work c CES d RES
- 31 Land Grant Colleges came into existence as part of
a Smith
Liver act
b Morrill act c Hatch act d Extension act
- 32 The English equivalent of the word *communis* is
a Information b Talk c common d None of the above
- 33 Levels of communication are
a Convention
al
b Exploratory c Participative d All the above
- 34 The way in which message is handled before placing in the channel
a Decoding b Treatment c Distortion d feedback
- 35 The type of audience best suited for communication process is called
a Active
audience
b Potential audience c Available
audience
d None of the above
- 36 The degree which individuals involved in communication differ in certain
characteristics
269
a Homophily b credibility c empathy d heterophily
- 37 Constant feedback between sender and the receiver is the characteristic feature of
a Interperson
al
communica
tion
b Mass
communication
c Written
communication
d Vertical
communication
- 38 The SMCR model of communication is given by
a Berlo b Laswell c Rogers d Leagens
- 39 LCD expends to
a Lazier
Crystal
Digital
b Lazier Crystal
Display
c Liquid Crystal
Display
d Liquid Crystal
Digital

- 40 The principle used in slide-cum-film projector
 a Direct projection
 b Indirect projection c Reflected projection
 d Diffused projection
- 41 Amplifier is a
 a Electronic medium
 b Print medium c Written medium d None of these
- 42 Primary colours used in extension are
 a Red, Blue, Yellow
 b Red, Blue, Green c Red, Blue, Purple
 d Red, Yellow, Green
- 43 The teaching aid which best represents suspense, sequence and story telling effects
 a Flash card b Flannel graph c Flip chart d All the above
- 44 The ABC of journalism is related to
 a Accuracy, Brevity, Credibility
 b Accuracy, Brevity, Clarity
 c Accountable, Brief, Clear
 d Active, Brief, Clear
- 45 The technology flow in the farmer first model is basically from
 a Agent to farmer
 b Researcher to agent
 c Farmer to farmer
 d Researcher to farmer
- 46 The spread of technology in a social system
 a Diffusion b Teaching c Learning d Adoption
- 47 The idea which is perceived as new is termed as
 a Information b Innovation c Perception d Invention
- 48 An innovation can be considered to have originated from
 a Farmer research
 b Extension programme
 c Research trails d All the above
- 49 An innovation with low relative advantage may have
 a Slow rate of adoption
 b High rate of discontinuance
 c Low return on investment

- d All of the above
- 50 Individual adopters in a social system is described in terms of his
a Economic conditions
b Time of adoption c Frequency of adoption
d Concurrence ability
- 51 The term innovation decision process was given by
a Wilkening b Rogers c Johnson and Rogers
d Ryan and Gross
- 52 An activity through which an individual becomes aware of the objectives around one self and of events taking place
a Participatio
n
b perception c Perpetuation d Predetermination
- 53 The term Homophily and heterophily were given by
270
a Rogers b Gabriel Tarde c Lazarsfeld and Merton
d None of the above
- 54 The theory of social change was put forward by
a D Berlo b K Lewin c E M Rogers d P Leagens
- 55 Essential characteristics of a primary group is
a Face to face contact
b Personal & emotional
c Interpersonal proximity
d Unity in diversity
- 56 Te decision to make use of a innovation as best course of action
a Adoption b Diffusion c Innovation d Technology
- 57 The first stage in the process of adoption according to Rogers is
a Attention b Interest c desire d satisfaction
- 58 Adopter categories are the classification of the members of the social system on the basis of
a Innovativen
ess
b Adoption process c Diffusion
process
d None
- 59 The character best represent an innovator
a Ventureso
me
b Skeptical c Traditional d Respectfulness
- 60 Discontinuance occurs only after an innovation has been
a Fully adopted
b Partially adopted c Not at all
adopted
d None of the above
- 61 Agriculturism is the characteristic feature of

a Rural society
b Tribal society c Urban society d Metro society

62 An example of primary group
a Tea club b University c Dairy Cooperative society
d Family

63 Which of the following is a formal institution?
a Charhca Mandal
b Bhajana Mandal c School d Tea shop

64 Superstition is more in
a Urban society
b Rural society c Tribal society d Metro Society

65 Father of Sociology
a Adam Smith b August Comte c A.R.Desai d Aristotle

66 Study of the laws of the structure and functions of the rural society is known as
a Sociology b Human Sociology
c Rural Sociology
d None of the above

67 The science of Rural Sociology studies
a Rural people b Problems of the rural people
c Rural social organizations
d All of the above

68 Tendency of the people to think of their culture as best is known as
a Egoism b Ethnocentrism c Ethno medicine d All of the above

69 An example for covert culture is
a Dress b Industrial Products
c Folk ways d Attitudes

70 Which of these factors play role in social change
a Geographic b Economic c Political d All of the above

71 In Which of the following roles, Veterinarian acts as a change agent
271
a Doctor treating animals in the hospital
b Veterinarian as a scientist
c Veterinarian as a Extension Education specialist
d None of the above

72 Which of the following is an example for Technological factor of social change
a Artificial Insemination
b Floods c Government Schemes

providing
subsidies to
Artificial
Insemination
d Dairy Cooperative
movement

73 Which of the following phrase aptly apply to Extension Education?

a Continuous
Process
b Educative
process
c Two way
Process
d All of the above

74 Extension is learning by doing while seeing is

a Learning b Explaining c Believing d Convincing

75 Extension education is a/an

a Basic science b Applied
Science
c Pure Science d Not a Science

76 The difference between 'what is' and 'what is ought to be' is called as

a Problem b Need c Wealth d Constraint

77 The expression of the ends towards which the efforts are directed is

a Goal b Need c Problem d Scarcity

78 The process by which a person becomes changed in his behaviour through self activity

a Attention b Objective c Learning d Teaching

79 First step in extension teaching process

a Satisfaction b Affection c Attention d Concentration

80 Extension is

a Non formal
Education
b Informal
Education
c Formal
Education
d Adult Education

81 Extension education is

a Helping
people
b Giving money
to people
c Helping people
to help
themselves
d None of the above

82 Shantiniketan was started by

a Mahatma
Gandhi
b Ravindranath
Tagore
c S.K.Dey d Bankim Chandra
Chaterjee

83 Gurgaon experiment was initiated by

a Albert Mayor b F.L.Bryne c S.K.Dey d Spencer Hatch

84 The term extension was formally first introduced in 1873 by

- a Oxford university
 - b Cambridge university
 - c Karnataka university
 - d Delhi university
- 85 Community Development Programme was started in the year
a 1952 b 1985 c 1945 d 1955
- 86 Main aim of Community Development Programme is to
a Give money to people
- b Develop poor people
 - c Develop rich people
 - d Overall development of the people
- 87 Main objective/s of the Community Development is / are
a To assist in building good
- b Provide minimum
 - c Providing recreational
 - d All of the above
- 272
panchayats,
co-operatives
and schools
health services facilities
- 88 Person overseeing the Community Development activities at block level was
a Deputy Commissioner
- b Assistant Commissioner
 - c Block Development Officer
 - d Gram Sevak
- 89 Ideal method for showing the poultry farmers how to mix a medicine in water
a Method Demonstration
- b Result Demonstration
 - c Home Visit
 - d Office Call
- 90 An example for audio aid
a Television b Radio c News Paper d Drama
- 91 Television is
a Audio aid b Visual aid c Audio-visual aid
- d Individual aid
- 92 Which of the following is an example for individual contact method

- a Television b News Paper c Circular letter d Home visit
- 93 Most appropriate teaching method during disease outbreak is
a Campaign b Television show
c Health camps d Home visit
- 94 An important limitation of Radio is
a Less coverage b High Cost c One way communication
d Not understandable
- 95 Which of the following extension teaching method is best for all conditions
a Individual b Group c Mass d Combination of all the above
- 96 Which of the following is not an example of projected teaching aid
a LCD b OHP c Slide Projector d Poster
- 97 The per capita availability of milk per day in India as on 2008 was
a 210g b 220g. c 190g. d 252g.
- 98 Organization at national level to promote trade of egg
a Egg Cooperative Society
b Poultry Development Board
c National Egg Co-ordination Committee
d National Dairy Development Board
- 99 National Dairy Development Board (NDDB) is located at
a New Delhi b Karnal c Anand d Kolkota
- 100 The state of India having highest production of milk
a UttarParadesh b Madhya Pradesh
c Punjab d Karnataka
- 101 An example for non-perishable dairy product
a Cream b Butter c Milk Powder d Curd
- 102 Highest egg production state in the country
a Karnataka b Tamil Nadu c Uttarpradesh d Andhra Pradesh
- 103 The stage in programme planning which follows the stage of evaluation is
a Reevaluation b Analysis of situation
c Reconsideration
d Appraisal
- 104 Key village scheme was started in the year
a 1951 b 1952 c 1947 d 1945
- 105 Segregated, old, infirm and unproductive cattle are maintained in
a Goshalas b Gosadans c Milk Sheds d Village Pastures
- 273
- 106 The second tier in the dairy co-operative organization is
a Primary Milk Producers' Co-operative

Society

b District Milk

Union

c State Milk

Federation

d NDDB

107 At state level, the milk co-operatives are governed by

a Primary Milk Producers' Co-operative Society

b District Milk Union

c State Milk Federation

d NDDB

108 Architect of White revolution in India

a Tribhuvandas Patel

b Verghese Kurien

c Sardar Vallabh Bhai Patel

d Balwantrao Mehta

109 The committee that recommended Panchayati Raj was headed by

a Tribhuvandas Patel

b Verghese Kurien

c Sardar Vallabh Bhai Patel

d Balwantrao Mehta

110 Village water supply is the main function of

a Gram panchayat

b Taluk panchayat

c Zilla panchayat

d All of the above

111 The present chairman of Planning Commission

a Montek Singh

Ahluwalia

b Manmohan

Singh

c Atal Bihari

Vajpayee

d P. Chidambaram

112 Outline of activities so arranged so as to enable effective execution of programme is called as

a Programme

Cycle

b Span of work c Plan of work d Evaluation

113 Duration of XII five year plan

a 2007-12 b 1997-2002 c 2002-07 d 2012-17

114 Judging the effectiveness of the programme is called as

a Analysis of

situation

b Reconsideratio

n

c Selection of

Problems

d Evaluation

115 Which of the following is not included in the steps of extension teaching?

a Conviction b Satisfaction c Subject matter d Desire

116 The study team headed by Balwantrao Mehta is constituted in 1957 for the purpose of

a To identify the

drawbacks

and weakness
of CD
programmes
and NES
b To suggest the
remedial
measures for
the success of
CD and NES
c a and b both are
correct
d To establish the
democratic
decentralization in
India

117 Which of the following is pioneer state to establish panchayat raj first in the country

a Andhra
pradesh
b Rajasthan c Karnataka d Tamilnadu

118 In Panchayat Raj Institutions (PRIs) reservation to the candidates belonging to SCs & Sts is made at all levels

a 50 % of the
total members
b 1/3 of the total
members
c In proportion to
their population
and area
d 40 % of the total
members

119 The no. of seat reserved for women in Panchayat Raj Institutions equal to.....

a 1/2 of the total b 1/4 of the total c 1/10 of the d 1/3 of the total

274
no. of seat no. of seat total no. of seat no. of seat

120 Which of the following statement is true W.R.T. Gram Sabha ?

a Entire
population of
the village
constitute
gram sabha
b All adult
members
registered as
voters in the
area of
panchayat
constitutes
gram sabha
c Only elected
members of
panchayat
constitute gram
sabha
d All of the above

ANSWER KEY

1 a 31 b 61 a 91 c
2 a 32 c 62 d 92 d
3 d 33 b 63 c 93 a
4 b 34 b 64 c 94 c
5 c 35 a 65 b 95 d
6 a 36 d 66 c 96 d
7 b 37 a 67 d 97 d
8 d 38 a 68 b 98 c
9 c 39 c 69 d 99 c
10 b 40 a 70 d 100 c
11 a 41 a 71 c 101 c
12 a 42 a 72 a 102 d
13 a 43 d 73 d 103 c
14 a 44 b 74 c 104 b
15 d 45 c 75 b 105 a
16 a 46 a 76 b 106 b
17 b 47 b 77 a 107 c
18 b 48 d 78 c 108 b
19 a 49 b 79 c 109 d
20 a 50 b 80 a 110 a
21 b 51 b 81 c 111 b
22 b 52 b 82 b 112 c
23 c 53 c 83 b 113 d
24 b 54 b 84 b 114 d
25 b 55 b 85 a 115 c
26 b 56 a 86 d 116 c
27 b 57 a 87 d 117 b
28 d 58 a 88 c 118 c
29 d 59 a 89 a 119 d
30 c 60 a 90 b 120 b

LIVESTOCK PRODUCTS TECHNOLOGY

1. Most commonly used humectants are
 - a. glycerol
 - b. sorbitol
 - c. sugar
 - d. all the above

2. The aw in intermediate moisture food is
 - a. 1-1.5
 - b. 0.6-0.85
 - c. 0.95-1.0
 - d. none

3. The minimum hurdles used in preservation by hurdle technology are
 - a. 2
 - b. 3
 - c. 1
 - d. 5

4. Chemical spoilage of meat & meat products indicated by high
 - a. TBA value
 - b. peroxide value
 - c. tyrosine value
 - d. all the above

5. The basic objectives of quality control are
 - a. protection of public health
 - b. competitive edge in the trade
 - c. both a & b

6. Broilers and young birds are scalded at
 - a. 55°Cx1.5 min.
 - b. 60°Cx2 min.
 - c. 50°Cx2min.
 - d. none

7. The per cent shell found in total egg weight
 - a. 15
 - b. 11
 - c. 9
 - d. 5

8. Egg is good source of
 - a. B complex vit.
 - b. fat soluble vit.
 - c. vit c
 - d. both a & b

9. Meat products are deficient in
 - a. potassium
 - b. phosphorus
 - c. iron
 - d. calcium

10. pH of egg white is
 - a. 7
 - b. 7.5
 - c. 8
 - d. 9.3

11. Sources of microbial contamination are
 - a. Water
 - b. soil
 - c. air
 - d. all

12. Contamination of meat also takes place during
 - a. Chilling
 - b. packaging
 - c. both a& b
 - d. none

13. Intrinsic factors which affect growth of micro organism are
 - a. Temperature
 - b. RH

- c. a_w
 - d. none
14. Methods of quick freezing are
- a. Blast freezing
 - b. cryogenic
 - c. Both a & b
 - d. none
15. The function of alkaline phosphates is
- a. WHC
 - b. improve texture
 - c. both a & b
 - d. none
16. Individual muscle fibers are classified into
- a. Red
 - b. intermediate
 - c. white
 - d. all the above
17. Meat is a good source of
- a. Calcium
 - b. iron
 - c. both a & b
 - d. none
18. The bound water in meat is
- a. 4-6%
 - b. 10-12%
 - c. 15-20%
 - d. none
19. The cholesterol content mg/100gm chicken meat is
- a. 100
 - b. 25
 - c. 75
 - d. 60
20. The cholesterol content (mg) of whole egg is
- a. 230
 - b. 250
 - c. 200
 - d. 270
21. The chemical state of iron in oxy myoglobin is
- a. Fe^{2+}
 - b. Fe^{3+}
 - c. oxidized
 - d. both a & b

22. Nutritional minimum of meat per head in kg.
- 18
 - 12
 - 10
 - none
23. When compared to beef pork contains more
- thiamine
 - folic acid
 - riboflavin
 - all the above
24. % lactic acid in the muscle after 24 hr. post mortem
- 1-1.5
 - 0.5-1.0
 - 2-2.5
 - none
25. Zone of maximum ice crystallization
- 0.5 to -4.0°C
 - 1°C
 - none
26. Flat sour is caused by
- B. coagulance
 - B. stereothermophilus
 - none
 - both a & b
27. Keep the microbes at low level for the purpose of
- aesthetic
 - public health
 - product shelf life
 - all the above
28. Cadaverine diamine is produced from decarboxylation of
- lysine
 - arginine
 - ornithine
 - none
29. The tenderness of meat is measured by
- Warner Bratzler Shear press
 - Kamaar Shear press
 - both a & b
 - None
30. Chemical spoilage of meat & meat products indicated by high
- TBA value
 - peroxide value
 - tyrosine value
 - all the above

31. Connective tissue proteins are
- Collagen
 - Reticulin
 - Elastin
 - All the above
32. Salt soluble proteins have relatively
- Low WHC
 - Medium WHC
 - High WHC
 - none
33. Sensory evaluation is necessary for
- aroma research
 - New product development
 - Both a & b
 - none
34. In triangle test
- Two product are similar
 - Three products are different
 - One product is different
 - both a & c
35. Organelle unique to muscle fiber
- Ribosome
 - mitochondria
 - myofibrils
 - All the above
36. I₂ value for horse fat is
- 71-86
 - 38-46
 - 50-70
 - none
37. Chemical spoilage of meat & meat products indicated by high
- TBA value
 - peroxide value
 - tyrosine value
 - all the above
38. Permitted levels of Sodium Nitrate in cured meats
- 200 ppm
 - 500 ppm
 - 700 ppm
 - 120 ppm
39. Specialized finishing process in garment making
- Lustring

- b). water repellent
 - c). Moth proofing
 - d) all the above
40. Vertical scalding in pig
- a) produce bacteria free lung
 - b) Reduce PSE
 - c) Both a & b
 - d) None
41. The follicles forming “trio” are known as secondary follicles
- a) Primary follicles
 - b) Secondary follicles
 - c) Tertiary follicles
 - d) None
42. Offals for edible purposes must be held at temperature not exceeding
- a) 3°C
 - b) 7°C
 - c) 10°C
 - d) None
43. Casing are made from (layer)
- a). Muscular
 - b) sub mucous
 - c) Serous coat
 - d) All the above
44. Wool yolk contains
- a) grease
 - b) suint
 - c) both a & b
 - d) none
45. In case of PSE Ph falls from 7 to 5.5 within a period of
- a) 4 hrs
 - b) 8hrs
 - c) 1 hour
 - d) All the above
46. Concentration of chlorine used in carcass washing is
- a) 100 ppm
 - b) 200 ppm
 - c) both a& b
 - d) none
47. Streaks of fat visible in the intercostal muscles between the ribs
- a) flank streaking
 - b) feathering
 - c) marbling

- d) All the above
48. Fatal syncope is relatively common in
- Landrace pig
 - Large white yorkshire
 - Both a & b
 - None
49. The test performed in all cases of suspect odours in meat
- Boudain test
 - Boiling test
 - Smelling test
 - None
50. The filler meats are
- Tripe
 - lips
 - stomach
 - All the above
51. The texture of muscle is determined by
- .Size & bundle of muscle fiber
 - connective tissue
 - . Both a & b
 - None
52. Total viable count in cooked meat should be
- $10^5 - 10^7$
 - 10^4
 - $10^5 - 10^7$
 - $10^5 - 10^7$
53. Advantages of meat comminution are
- . Improved uniformity
 - . increased tenderness
 - . Variety products
 - . All the above
54. Meat is composed primarily of
- .Muscle
 - .connective tissue
 - . Both a & b
 - . None
55. The relatively constant component of collagen is
- . Hydroxyproline
 - .Lysine
 - . Glycine
 - . None
56. The equipments commonly used for meat comminution includes

- a) Meat mincer
- b). bowl chopper
- c) emulsion mill
- d). All the above

57. Permitted level of sodium nitrite (ppm) in finished cured products

- a). 200
- b). 500
- c). 700
- d).900

58. The protein content of an egg (avg.)

- a) 6 gram
- b) 8 gram
- c) 10 gram
- d) 12 gram

59. Red rot in egg is caused by

- a). *Serratia Spp*
- b) *Aeromonas Spp*
- c) *fungus Spp.*
- d) None

60. Lysozyme present in

- a) Egg white
- b). Egg yolk
- c) Both a & b
- d) None

61. The sulphur (%) content of wool is

- a) 4-5%
- b) 6-7%
- c) 8-9 %
- d) None

62. The land requirement for Small abattoirs (acres)

- a) 1-2 acres
- b) 4-6 acres
- c) 6-8 acres
- d) None

63. Penetrative captive bolt results in (neurons)

- a) Depolarization
- b) Repolarization
- c) Both a & b
- d) None

64. During meat cutting process the temperature of building must not exceed

- a) 10°C
- b) 15°C
- c) 20°C

- d) 25°C
65. In case of pneumatic stunners the bolt is activated under a pressure of (p.s.i.)
- a) 40-60
 - b) 80-120
 - c) 120-140
 - d) None
66. The spoilage of egg is called
- a) Rotting
 - b) pin spots
 - c) Both a & b
 - d) None
67. Example for binder in meat emulsion
- a) skim milk powder
 - b) egg powder
 - c) Sodium caseinate
 - d) All the above
68. Proteolytic enzymes present in meat
- a) Cathepsins
 - b) Calpines
 - c) Both a & b
 - d) None
69. The most important carcinogenic component present in wood smoke
- a) Benzopyrenes
 - b) Benzanthracines
 - c) Both a & b
 - d) None
70. Slaughter rate in canpack system is
- a) 40-50 cattle/ hour
 - b) 40-75 cattle/ hour
 - c) 50-150cattle/ hour
 - d) None
71. Minor milk constituents are
- a) Ash
 - b) Protein
 - c) Lactose
 - d) None
72. SNF content of standardized milk is
- a) 8.5%
 - b) 8%
 - c) 9% fat
 - d) None

73. Recommended milk consumption per person per day

- a) 300g
- b) 350g
- c) 200g
- d) 280g

74. Bactofugation of milk removes

- a) 50% bacteria
- b) 80% bacteria
- c) 99% bacteria
- d) cent % bacteria

75. Milk phospholipids is/are

- a) Lecithin
- b) Sphingomyelins
- c) Cephalin
- d) All the above

76. Ghee residue is used in making

- a) Toffee
- b) Indegenous sweet meat
- c) both a & b
- d) beverage

77. Specific gravity of fat is

- a) 1
- b) 0.75
- c) 0.5
- d) 0.93

78. By-product obtained during preparation of desi butter

- a) butter milk
- b) whey
- c) skim milk
- d) All the above

79. The property/ies of Aluminium foil

- a) seal with heat
- b) acid tolerant
- c) opaque to light
- d) all the above

80. Regarding pasteurized milk
- a) Clot with Rennet
 - b) destroy bacterial toxins
 - c) Reduce cream line
 - d) None
81. The Kumiss is
- a) Acid fermented milk
 - b) alcohol fermented milk
 - c) Acid alcohol fermented milk
 - d) None
82. The indicator organism for milk pasteurization is
- a) *Mycobacterium paratuberculosis*
 - b) *Coxiella burnettie*
 - c) *Clustridium botulinum*
 - d) *Staphyloccocus aureus*
83. The percent fat content of ghee is
- a) 79-89.5%
 - b) 89-98.5%
 - c) 99-99.5%
 - d) 69-79.5%
84. Water adultration of milk
- a) Lowers Lactometer Reading
 - b) increases lactometer Reading
 - c) both a & b
 - d) None
85. Double toned milk contains
- a). 3% fat
 - b) 4.5% fat
 - c)1.5% fat
 - d)0.5% fat
- 86 Whey proteins are
- a) alpha Lactalbumin
 - b) beta Lactoglobulin
 - c) both a & b
 - d) None
87. AMUL dairy was established at

- a) Karnal
 - b) Anand
 - c) Tirupati
 - d) Bareilly
88. Lactose used in the preparation of
- a) humanized milk
 - b) infant food
 - c) Bakery product
 - d) All the above
89. On an average buffalo milk furnishes (energy)
- a) 75 Calories
 - b) 100 Calories
 - c) 150 Calories
 - d) 200 Calories
90. Operation flood started in the year
- a) 1st July 1970
 - b) 1st July 1975
 - c) 1st July 1980
 - d) None
91. Milk is deficient in (mineral)
- a) Fe
 - b) Cu
 - c) I₂
 - d) All the above
92. Most commonly used stabilizer in ice cream is
- a) Sodium alginate
 - b) Gelatin
 - c) Both a & b
 - d) None
93. Most commonly used dairy sanitizer is
- a). Hot water
 - b). Steam
 - c) both a & b
 - d). None
94. The moisture (%) content of milk powder is
- a) 5%
 - b) 6%
 - c) 7%
 - d) 8%
95. The percent fat content in plastic cream is

- a) More than 50%
- b). More than 60%
- c) More than 70%
- d) More than 80%

96. Specific gravity of buffalo milk is

- a) 1.028-1.030
- b) 1.030-1.032
- c) 1.032-1.035
- d) None

97. On an average cow milk furnishes energy (calories/ 100 g)

- a) 75 calories
- b) 100 calories
- c) 150 calories
- d) None

98. After pasteurization milk is immediately cooled to (temperature)

- a) $4 \pm 1^{\circ}\text{C}$
- b) $8 \pm 1^{\circ}\text{C}$
- c) $10 \pm 1^{\circ}\text{C}$
- d) None

99. The geographical area from which city dairy received its fluid milk

- a) Milk Shed
- b) Milk barn
- c) Village
- d) None

100. NDRI is located at

- a) Bareilly
- b) Karnal
- c) Izatnagar
- d) Bangalore

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1.	d	21	a	41	a	61	a	81	c
2.	b	22	a	42	a	62	a	82	b
3.	a	23	a	43	b	63	a	83	c
4.	d	24	b	44	c	64	b	84	a
5.	c	25	a	45	c	65	b	85	c
6.	a	26	d	46	a	66	c	86	c
7.	b	27	d	47	b	67	d	87	b

8.	d	28	a	48	a	68	c	88	d
9.	d	29	c	49	b	69	c	89	b
10	d	30	d	50	d	70	c	90	a
11	d	31	d	51	c	71	d	91	d
12	c	32	c	52	b	72	a	92	c
13	c	33	c	53	d	73	d	93	b
14	c	34	d	54	c	74	c	94	a
15	c	35	c	55	a	75	d	95	d
16	d	36	a	56	d	76	c	96	b
17	b	37	d	57	a	77	d	97	a
18	a	38	b	58	a	78	a	98	a
19	c	39	d	59	a	79	c	99	a
20	d	40	c	60	a	80	c	100	b

THE END