



BHAVIN DHANDHALA

(B.V.SC.&.A.H.)

MO: 09574737322

EMIAL:

bhavindhandhala@gmail.com

MULTIPLE CHOICE QUESTION
VETERINARY SCIENCE & ANIMAL HUSBANDRY

1. Punched ulcers in abomasums of cattle are characteristic of :

- a. *Theilaria annulata*
- b. *Babesia bigemina*
- c. *Haemonchus contortus*
- d. *Ostertagia ostertagi*

2. Typical sign of ripened abscess is

- a. Swelling
- b. Pain
- c. Fluctuation
- d. **Pointing**

3. Operation flood I was launched during

- (a) 1960
- (b) **1970**

(c) 1980

(b) 1982.

4. When world environmental day celebrated....

a) 15th June

b) 5th July

c) 15th July

d) 5th June

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. The term that refers to the percentage of packed erythrocytes per unit volume of blood is the:

a. Differential Count

b. Hemoglobin

c. Hematocrit

d. Hemopoiesis

7. Which of the following enzymes are present in the acrosome of the bovine sperm?

a. Trypsin

b. Adenylate cyclase

c. Phospholipase C (PLC)

d. Acrosin

8. Which of the following is the smallest compartment of the ruminant stomach?

- a. Rumen
- b. Reticulum**
- c. Omasum
- d. Abomasum

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9. Blood is added in blood medium agar at following concentration:

- a) 5-10 %**
- b) 15 %
- c) 20 %
- d) 2 %

10. The 5 carbon sugar compound present in DNA molecule is:

- a. Erythrose
- b. Deoxyribose**
- c. Ribose
- d. Ribulose

11. Study of birds which are not classed as poultry is known as

- a. Poultry Science
- b. Ornithology**
- c. Bird Science
- d. Poultry Production

12. Inhibition of aggregation of platelets

- a) Aspirine**
- b) Urokinase
- c) Thromboxane A2
- d) Streptokinase

13. Gajrai grass is the fodder grass belong to group

- a. Seasonal
- b. Annual
- c. Perennial**
- d. None

14. Which of the following will be the number of chromosomes in the sperm of a Sahiwal bull?

- a) 30**
- b) 60
- c) 50
- d) 25

15. Skim milk powder is a byproduct of

- a) Industrial**
- b) Grain
- c) Cereal
- d) Roughage

16. East coast fever in cattle is caused by:

- (a) Theileria**
- (b) Trypanosoma
- (c) Babesia
- (d) None

17. Wound does not heal is known as

- a. Maggot wound
- b. Ulcer**
- c. Infected wound

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- d. Contaminated wound

18. 73rd amendment act 1992 was introduced to strengthen

- a Dairy development
- b Community development
- c Panchayat development**
- d Co-operative development

19. CFC's are responsible for depletion of.....

- a) Ozone**
- b) Oxygen
- c) Carbon
- d) Nitrogen

20. Serum calcium and phosphorus concentration in nutritional dystrophies may

- a) Increase above normal level
- b) Decrease above normal level
- c) Decrease appreciably
- d) remain with-in normal range**

21. Which of the following is a circulating blood cell that is capable of differentiating into a plasma cell?

- a. Neutrophil
- b. Basophil
- c. B lymphocyte**
- d. T lymphocyte

22. After ovulation, which of the following is most important for the rapid movement of the oocyte to

the ampular-isthmic junction of the oviduct?

- a. Fluid production by the isthmus
- b. Cillilary beating in the ampulla
- c. **Muscle contractions in the ampulla**
- d. The presence of cumulus cells surrounding the oocyte at ovulation.

23. Which is the hardest substance in the animal body?

- a. Bone
- b. Cartilage
- c. **Enamel**
- d. Dentine

24. Nucleic acid present in virus

- a) DNA
- b) RNA
- c) **Either DNA or RNA**
- d) Both DNA and RNA

25. The synthesis of new DNA strand on template strand takes place in the direction of:

- a. 3'-5'
- b. **5'-3'**
- c. In both the directions
- d. In 3'-5' on leading strand and in 5'-3' direction on lagging strand

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26. Study of birds which are classed as poultry is known as

- a. **Poultry Science**

- b. Ornithology
- c. Bird Science
- d. Poultry Production

27. Verapamil blocks transport of

- a) Sodium ion
- b) Chloride ion
- c) Calcium ion**
- d) Potassium ion

28. Subabul is the grass originated in the country

- a. Maxico**
- b. U. S. A.
- c. Brazil
- d. India

29. Genotype of purebred Rose comb hen should be

- a) RrPp
- b) RRPp
- c) RRpp**
- d) rrpp

30. Example of protein is

- a) Peptide
- b) Amine
- c) Amino acid
- d) Glutamine**

31. Caecal coccidiosis in fowl is due to which of the following :

- (a) Eimeria precox*

- (b) *Eimeria mutis*
- (c) *Eimeria tenella*
- (d) *Eimeria brunetti*

32. The main cause of death in case of burn during latter stage is

- a. Hypovolemia
- b. Blood loss
- c. Asphyxia
- d. Secondary infection**

33. Ranching is common practice in

- (A) India
- (B) Australia**
- (C) Japan
- (D) USA

34. Humidity is measured by.....

- a) Luxmeter
- b) Dry bulb thermometer
- c) Wet bulb thermometer**

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d) Chlorinometer

35. Increase survival rate of *S. pullorum* infected chick embryo is achieved by drug

- a) Chloramphenicol
- b) Furazolidon
- c) Oxytetracycline
- d) Colistin**

36. The component of plasma responsible for maintaining the osmotic pressure of blood is:

- a. Plasmin
- b. Albumin**
- c. Fibrinogen
- d. Gamma globulin

37. Following artificial insemination in the cow, increased retrograde flow will occur if semen is placed in which of the following locations?

- a. Cervix**
- b. Uterine body
- c. Uterine horn, at the greater curvature (half way up the uterine horn)
- d. At the distal tip of the uterine horn

38. Which is the largest foramen in the skull?

- a. Foramen magnum**
- b. Supraorbital foramen
- c. Infra orbital foramen
- d. Mantel foramen

39. Short hair like projections for attachment and genetic transfer in bacteria are:

- a) Flagella
- b) Fimbria**
- c) Plasmid
- d) All

40. The autonomously replicating extra-chromosomal double stranded DNA molecule present in bacteria is called:

- a. Plasmid**

- b. Episome
- c. Phage
- d. Transposon

41. Modern chicken are descendents of the which following wild species

- a. *Gallus soneratti*
- b. *Gallus lafeyetti*
- c. *Gallus varius*
- d. ***Gallus gallus***

42. The most appropriate anticoagulant used for collection of blood for blood glucose estimation

- a) Sodium EDTA
- b) **Sodium fluoride**
- c) Heparin
- d) Sodium oxalate

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43. Swath curing is the method apply to

- a. Cutting the crop
- b. Hay making
- c. **Silage making**
- d. Straw making

44. The strength of selection is expressed as

- (a) **Coefficient of selection**
- (b) Response to selection
- (c) Selection differential
- (d) None

45. Inflammation of lymph node is called as-

- (A) Lymphangitis

(B) **Lymphadenitis**

(C) Typhilitis

(D) Both (A) and (B).

46. Example of NPN is

a) Albumin

b) Amino acid

c) Prolamine

d) Lignin

47. Example of anaerobic protozoa is :

(a) Leishmania

(b) Trichomonas

(c) Trypanosoma

(d) None of the above

48. Last stage of wound healing is

a. Wound contraction

b. Epithelization

c. Fibroplasia

d. Vasodilatation

49. The approach in which people have their say in programmed planning is

(A) Democratic

(B) Authoritative

(C) Directive

(D) Laissez-faire

50. The metal should not be used for storage of rain water is.....

a) Iron

b) Galvanized iron

c) **Lead**

d) Copper

51. Virion of avian infectious bronchitis has a shape of

a) Globules with cilia

b) **crown like projection**

c) Oval shaped body

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d) elliptical round body

52. Plasma is:

a. Blood that has no red blood cells

b. **The liquid portion of blood including the clotting factors**

c. The liquid portion of blood minus the clotting factors

d. The proteins of blood

53. The concentration of sperm in the ejaculate would be highest among which of the following farm

animal species?

a. Bull

b. **Ram**

c. Boar

d. Stallion

54. Which of the bone is the hardest bone in the animal body?

a. Femur

b. Tibia

c. **Petrous temporal**

d. Humerus

55. The term antibiotic was first used by:

a) Domagk

b) Fleming

c) **Waksman**

d) Robert Koch

56. The scientists associated with discovery of “restriction endonucleases”:

a. Lederberg

b. **Kelly & Smith**

c. Dulbecco

d. Korenberg

57. National Institutes of Nutrition (NIN) to Government of India has recommended eggs and

poultry meat consumption per capita per annum are

a. 18 eggs and 9 kg of poultry meat

b. 180 eggs and 0.90 kg of poultry meat

c. **180 eggs and 9.0 kg of poultry meat**

d. 180 eggs and 11.0 kg of poultry meat

58. Receptors of CTZ stimulated by centrally acting emetics are

a) α_1

b) α_2

c) β_1

d) **Dopamine**

59. For ensiling the fodder crop should contain moisture percent

- a. 40 to 50
- b. 50 to 60
- c. **65 to 70**
- d. 70 to 75

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60. What will be the phenotypic ratio in progenies from a cross between creeper and normal fowl

- a) **1:1**
- b) 3:1
- c) 9:7
- d) 2:1

61. DCP content of Guinea grass

- a) 50%
- b) 5%
- c) 15%
- d) **1%**

62. Disease of poultry which is not caused by virus is-

- (A) **Chronic respiratory Disease**
- (B) Infectious Bronchitis
- (C) Fowl Pox
- (D) Ranikhet Disease.

63. Wild game is reservoir host for which parasite :

- (a) ***Trypanosoma evansi***

- (b) Taenia
- (c) *Entamoeba histolytica*
- (d) Coccidia

64. The best treatment of fistula is

- a. Antibiotics
- b. Antibiotics and corticosteroids
- c. **Surgical removal**
- d. Counter irritants

65. In IRDP, SC/ST and physical handicapped beneficiaries are provided subsidy @

Percent

- (A) 10
- (B) 25
- (C) 33
- (D) **50**

66. Among following is the safest source of drinking water.....

- a) Shallow well
- b) Surface water
- c) River
- d) **Deep well**

67. If vomition due to metabolic acidosis suggested fluid therapy is

- a) **Ringers lactate**
- b) Normal saline
- c) Dextrose saline
- d) Dextrose saline 20%

68. Excessive destruction of erythrocytes is

characteristic of:

- a. Thalassemia
- b. Aplastic anemia

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- c. Pernicious anemia
- d. **Hemolytic anemia**

69. Which of the following are examples of the maturation function in the epididymis?

- a. **Removal of protoplasmic droplets**
- b. Concentration of sperm
- c. Secretion of glycoproteins by principle cells
- d. Contractions of smooth muscle

70. Which of the following is tendinous linear sheet present at the abdominal floor?

- a. **Linea alba**
- b. Rectus abdominis
- c. Fascia
- d. Tendoachillis

71. Agar is a source of carbohydrate to:

- a) Most of the bacteria
- b) Only a few bacteria
- c) **None of the bacteria**
- d) All the bacteria

72. The acquisition of DNA molecule by bacterial cells from environment is called:

- a. **Transformation**
- b. Transduction
- c. Conjugation

d. None

73. First poultry show was held at Boston in the year

a. 1838

b. 1870

c. 1861

d. 1849

74. Agar acts as a

a) Cathartics

b) Emollient purgative

c) Bulk purgative

d) Osmotic purgative

75. Mango seed kernel is the byproduct of industry

a. Canning industry

b. Oil industry

c. Gluten industry

d. None

76. Proportion of Roan polled progenies from a cross between Red polled (Pp) and white polled (Pp)

cow will be

a) 0.25

b) 0.50

c) 0.75

d) 0.60

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77. Bronze discolouration of Liver in poultry is

caused by-

- (A) Pasteurellosis
- (B) IBD Virus
- (C) Leptospirosis
- (D) Salmonellosis**

78. Rich source of carbohydrates

- a) Barley**
- b) Bone meal
- c) Cotton seed
- d) Dub grass

79. Tape worm increases in which of the following :

- (a) Liver
- (b) Caecum
- (c) Small intestine**
- (d) None

80. Typical sign of moist gangrene of tail is

- a. Erected hairs
- b. Immobility of tail
- c. Swelling
- d. Cold to touch**

81. In First five year plan -----programmed was started for development of animal Husbandry

common alone

- (A) Operation flood I
- (B) Key village scheme**
- (C) ICDP

(D) Gosadan

82. Causative agent of undulant fever is.....

a) ***Br. abortus***

b) *Br. melitensis*

c) *Br. suis*

d) *Br. Equi*

83. Coughing up of blood is termed as

a) Haematemesis

b) Epistaxis

c) Metrorrhagia

d) **Haemoptysis**

84. A hematocrit of 80 would be considered:

a. **Polycythemia**

b. Anemia

c. Thrombocytopenia

d. Leukemia

85. The ATP produced by sperm goes towards which of the following?

a. **Motility**

b. Maturation of sperm

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c. Lysis of corona radiate

d. Transcription and translation

86. Which of the following is the longest ligament in the animal body?

a. Broad ligament

b. Umbilical ligament

c. **Supraspinatous ligament**

d. Caudate ligament

87. Bacteria that grow at 50-550 C are known as:

a) Psychrophiles

b) Mesophiles

c) Thermophiles

d) Halophiles

88. The ability of the cell to acquire DNA from environment is called:

a. Competence

b. Compatibility

c. Interference

d. None of the above

89. Per capita availability of poultry eggs and meat are respectively

a. 44 nos. and 17.6 kg.

b. 176 nos. and 44 kg.

c. 44 nos. and 1.76 kg.

d. 176 nos. and 4.4 kg

90. Acid rebound effect is observed with

a) Sodium bicarbonate

b) Sodium citrate

c) Sodium chloride

d) Potassium iodide

91. Rotational stocking is the method of

a. Storage of feed

b. Feeding of animal

c. Grazing of animal

d. Management of pasture

92. The cross over percentage ranges between

a) 80 -100 %

b) 50 -100 %

c) **0- 50 %**

d) 50 – 80 %

93. Fragmentation of nucleus in a cell is termed

as-

(A) Pyknosis

(B) Karyorrhexis

(C) Karyolysis

(D) Chromatolysis

94. Concentrate is a feed containing more than

% TDN

a) 20

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b) 10

c) **60**

d) 30

95. Triangular and pyriform apparatus like cooked rice grain present in egg of :

(a) *Moniezia sp.*

(b) *Hymenolepis nana*

(c) *Dipylidium sp*

(d) *Taenia sp*

96. Common site of occurrence of haematoma

in dog is

a. Ear

b. Eyelid

c. Tail tip

d. Digit

97. Prime goal of state department of animal husbandry and dairying is to provide ----- To the farmers

(A) Subsidy

(B) Input

(C) Service

(D) Semen

98. The causative agent of hydatidiosis is....

a) *Echinococcus granulosus*

b) *Diphyllobothrium spp.*

c) *Taenia solium*

d) *Taenia saginata*

99. Ptyalism is

a) Excessive secretion from Brunner's gland

b) Excessive salivation

c) Decrease secretion from salivary gland

d) Decrease secretion of succus entericus

100. During hemoglobin recycling in the spleen, heme is initially converted into:

a. Bilirubin

b. Stercobilin

c. Urobilin

d. Urobilinogen

101. Failure of the blood testis barrier would directly prevent

a. Stem cell renewal.

b. Spermatocytogenesis.

c. Meiosis.

d. Spermiogenesis.

102. Which of the following is unpaired skeletal muscle present in the animal body?

a. Diaphragm

b. Biceps brachii

c. Popliteus

d. Quadriceps femoris

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103. Nucleic acid not found in plasmids is:

a) DNA

b) RNA

c) either DNA or RNA

d) Both DNA and RNA

104. First Genome sequenced was of

a. Bacteriophage λ

b. Bacteriophage ϕ X 174

c. *Haemophilus influenza*

d. Homo sapiens

105. Total contribution of poultry production to the National GDP of India is nearly

a. 1.0 %

b. 0.1 %

c. 10 %

d. 8 %

106. Which one of the following is a rate limiting step in adrenaline synthesis?

- a) Tyrosine to DOPA
- b) **DOPA to Dopamine**
- c) Dopamine to Nor-adrenaline
- d) None of the above

107. The synonym of Anjan grass is

- a. **Dhaman**
- b. Shevari
- c. Ghamar
- d. Jinjavo

108. Slow and fast feathering trait in poultry is

- a) **Sex linked**
- b) sex limited trait
- c) sex influenced
- d) autosomal

109. Infectious Necrotic Hepatitis in sheep is caused by-

- (A) *Leptospira sp.*
- (B) *Fasciola hepatica*
- (C) ***Clostridium sp.***
- (D) *Heterakis gallinarum*

110. Green fodder to be ensiled should have DM between

- a) 50 to 60%
- b) **30 to 35%**
- c) 20 to 25%
- d) 15 to 20%

111. All domestic animal is definitive host for which of the following :

- (a) *Moniezia sp.* .
- (b) *Hymenolepsis nana*
- (c) *Dipylidium sp*

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(d) *Taenia sp.*

112. The best suture material for peritoneum in dog is

- a. Catgut # 1
- b. **Catgut # 1/0**
- c. Catgut # 2
- d. Catgut # 3

113. Programmed is the statement of situation --
--- problem and solution

- (A) Physical resources
- (B) Objectives**
- (C) Planning
- (D) Goal

114. Sellar's staining technique is used for diagnosis of.....

- a) Rabies**
- b) Brucellosis
- c) Listeriosis
- d) Tuberculosis

115. Tympany of diaphragmatic hernia is

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

116. All of the following conditions impair coagulation except:

- a. **Vascular spasm**
- b. Vitamin K deficiency
- c. Severe hypocalcaemia
- d. Liver disease

117. Spherical bodies, weighing 0.45 – 0.9 kg, attached to the placenta of a normal calf comprising of

an outer skin enclosing a mass of adipose connective tissue is known as

- a) Perosomus elumbis
- b) **Amorphus globosus**
- c) Otter calf
- d) Schistosomus reflexus

118. Which one of the following is the longest nerve in the animal body?

- a. **Vagus**
- b. Sciatic
- c. Femoral
- d. Median

119. Disposable articles are best sterilized by:

- a) Hot air oven
- b) Autoclave
- c) **Gamma radiation**
- d) Alcohol

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120. First bacterial genome sequenced was of

- a. *Salmonella typhimurium*
- b. *Bacillus anthracis*
- c. ***Pseudomonas aeruginosa***
- e. *Haemophilus influenza*

121. Female Hen has a following set of chromosomes

- a. Xx
- b. **Xw**
- c. Zz
- d. Zy

122. Which of the following drugs is used in treating digitalis arrhythmia?

- a) Lignocaine
- b) **Quinidine**
- c) Procainamide
- d) None of the above

123. *Medicago sativa* is the botanical name of

- a. **Alfalfa**
- b. Berseem
- c. Guar
- d. Cowpea

124. Stage of cell division in which chiasmata formation takes place is

- a) Metaphase I
- b) **Pachytene**
- c) Diakinesis
- d) Anaphase

125. The animal resistant to Atherosclerosis is-

- (A) Cattle
- (B) Swine
- (C) Rabbit
- (D) Poultry.

126. Lucerne hay contains % TDN

- a) 10
- b) 30
- c) 20
- d) 50

127. In which tape worm, uterus is long transverse and dumbbell shape :

- (a) *Stilesia hepatica*
- (b) *Thysanosoma actinoides*
- (c) *Thysaneizia giardia*
- (d) *Anaplocephala magna*

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128. Which of the following is unpaired skeletal muscle present in the animal body?

- a. Diaphragm
- b. Bicepsbrachii
- c. Popliteus
- d. Quadriceps femoris

129. Which one of the following is the longest nerve in the animal body?

- a. Vagus
- b. Sciatic
- c. Femoral
- d. Median

130. Which of the following is the largest nerve in the animal body?

- a. Radial
- b. Sciatic**
- c. Femoral
- d. Median

131 Which one of the following nerve supplying to blood vessel?

- a. Vasomotor**
- b. Sensory
- c. Mixed
- d. Motar

132. Which of the following is a spindle shaped glandular stomach of the bird?

- a. proventriculus**
- b. fundic part
- c. Gizzard
- d. pyloric part

133. In modern smoke house, we can control

- a) Temperature**
- b) Moisture
- c) Flavour
- d) None of the above

134. Which of the following is an opening of abomasum into the duodenum?

- a. Pylorus**
- b. cardia
- c. rima oris

d. Isthmus faucium

135. Stage of cell division in which chiasmata formation takes place is

- a) Metaphase I
- b) Pachytene**
- c) Diakinesis
- d) Anaphase

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136. The Frequency for any class that is obtained by dividing the frequency for that class by the total number of observations is known as

- (a) Class frequency
- (b) Relative frequency**
- (c) Cumulative frequency
- (d) Grouped frequency

137. The dose of a drug that kills 50 % of the population is known as

- (a) ED50
- (b) LD50**
- (c) KD50
- (d) Half life dose

138. Exchange of non homologous chromosome material is known as

- a) Translocation**
- b) Crossingover
- c) Duplication
- d) Synapsis

139. The terms gene and genotype were coined by

- (a) Wilson
- (b) Johannsen**
- (c) Mendel
- (d) Weisman

140. Spherical bodies, weighing 0.45 – 0.9 kg, attached to the placenta of a normal calf comprising of

an outer skin enclosing a mass of adipose connective tissue is known as

- a) Perosomus elumbis
- b) Amorphus globosus**
- c) Otter calf
- d) Schistosomus reflexus

141. Obturator paralysis is more common in

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

142. Early insemination during estrous leads to fertilization failure due to

- a) Ageing of sperms**
- b) Ageing of zygote
- c) Ageing of ovum
- d) none of above

143. The relations of the dorsum of the fetus to the quadrants of the maternal pelvis is

- a) Presentation
- b) Position**
- c) Posture
- d) None of the above

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144. Sterno abdominal presentation is a

- a) Posterior longitudinal presentation
- b) Transverse ventral presentation**
- c) Anterior longitudinal presentation
- d) Transverse dorsal presentation

145. Balwant Ray Mehta committee was appointed by

- (A) Govt. of India
- (B) planning commission**
- (C) State govt.
- (D) NGO

146. Post is example of -----aid.

- (A) Visual**
- (B) Audio
- (C) A.V.
- (D) Projected

147. Who is the architect of Indian modern dairy industry?

- (A) Dr. V.Kurian**
- (B) Dr. Amrita Patel
- (C) Shree Parthi Bhatol
- (D) MansiBhai

148. Operation Flood III Was Launched during

(A) 1986

(B) 1990

(C) 1992

(D) 1998

149. The synonym of Anjan grass is

a. Dhaman

b. Shevari

c. Ghamar

d. Jinjavo

150. *Medicago sativa* is the botanical name of

a. Alfalfa

b. Berseem

c. Guar

d. Cowpea

151. The nitrogen content (%) of urea fertilizer is

a. 38

b. 42

c. 46

d. 50

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152. Licking of wall is the vices observed in animal due to

a. Mineral deficiencies

b. Internal parasites

c. Depraved appetite

d. All of the above

153. Wind sucking is the vice observed in the species

- a. Pig
- b. Cattle
- c. Horse**
- d. None of above

154. Mediterranean chicken breeds egg shell colour is

- a. Brown
- b. White**
- c. Brown and white
- d. All of above

155. American chicken breeds skin colour is

- a. Brown
- b. Yellow**
- c. White
- d. Black

156. Medusa head colonies are characteristic feature of.....

- a) *Rickettsia spp.*
- b) *Bacillus anthracis***
- c) *Clostridium botulinm*
- d) *Listeria spp.*

157. Ring worm infection is caused by.....

- a) *Nocardia spp.*
- b) *Trichophyton spp.***
- c) *Candida spp.*
- d) *Dermatophillus spp.*

158. Curdling without pronounced acid production associated with milk and milk

products.....

- a) **Sweet curdling**
- b) Acid curdling
- c) Curdling
- d) Alkaline curdling

159. Type of microbial association in which in which food chain i.e. the metabolic products of one are utilized by the other.....

- a) Metabolism
- b) Symbiosis
- c) **Fermentation**

160. Which of the following breeds of class is known for egg production

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- a. American breed
- b. Asiatic breeds
- c. English breeds
- d. **Mediterranean breeds**

161 Which of the following breeds of class has feathered shank

- a. American breed
- b. **Asiatic breeds**
- c. English breeds
- d. Mediterranean breeds

162. Which of the following is smallest tape worm of poultry :

(a) *Ralleitina tetragona*

(b) *Ralleitina echinobothridia*

(c) ***Davainea proglotina***

(d) *Hymenolepis nana*

163. Indian liver fluke is which of the following :

(a) *Prosthogonimum sp.*

(b) *Paramphistomes sp.*

(c) *Fasciola hepatica*

(d) ***Fasciola gigantica***

164. Ovary much lobulated in which of the following :

(a) ***Prosthogonimus sp.***

(b) *Paramphistomes sp.*

(c) *Fasciola hepatica*

(d) *Fasciola gigantica*

165. Haemoglobinuria is seen in-

(A) Theileriosis

(B) **Leptospirosis**

(C) Salmonellosis

(D) Pasturellosis.

166. Who is the father of Cellular Pathology?

(A) John Hunter

(B) Robert Koch

(C) **Rudolph Virchow**

(D) K.Cohnhiem.

167. Pseudo Rabies is caused by-

(A) Lyssa virus

(B) Picorna virus

(C) Paramyxo virus

(D) **Herpes virus.**

168. Pulpy Kidney Disease is caused by-

(A) *Clostridium perfringens*

(B) *Clostridium septicum*

(C) *Clostridium novyi*

(D) *Clostridium tetani*

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169. Turkey Egg Kidney is seen in-

(A) Swine Pox

(B) Swine Influenza

(C) **Swine Fever**

(D) Swine Erysipelas.

170. Antiseptics used for cleaning of eye is

a. Dettol

b. **Boric acid**

c. Tr. iodine

d. Zinc oxide

171. 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

172. Pathognomic signs of fracture is

a. **Crepitation**

b. Pain

- c. Swelling
- d. Loss of function

173. Which of the following is a unicellular gland that is typically found in mucosal epithelium?

- a. Neuroepithelial cell
- b. Myoepithelial cell
- c. Goblet cell**
- d. Friar cell

174. Which of the following cells is primarily responsible for the production of collagen and the

amorphous ground substance in loose connective tissue?

- a. Adipocyte
- b. Fibroblast**
- c. Mast cell
- d. Plasma cell

175. Which of the following describes a secretory process in which no cell membrane components or cytosolic contents are lost?

- a. Merocrine**
- b. Apocrine
- c. Holocrine
- d. Endocrine

176. The matrix of connective tissue is composed of:

- a. Cells, fibers, and ground substance

- b. Cells and fibers
- c. Fibers and ground substance**
- d. Cells and ground substance

21

177. Following is not an effect of the Ganglionic blockade

- a) Dry mouth
- b) Anhidrosis**
- c) Tachycardia
- d) Vasoconstriction

178. Magnesium sulphate has following effects except

- a) CNS depressant
- b) Purgative
- c) Muscle relaxant
- d) Diuretic**

179. Which one of the following is an osmotic diuretic?

- a) Magnesium sulphate
- b) Ethacrynic acid
- c) Spironolactone**
- d) None of the above

180. What is the site of action of carbonic anhydrase inhibitors?

- a) Throughout the length of the tubule
- b) Loop of Henle
- c) PCT**
- d) DCT

181. Viruses having Reverse transcriptase enzyme:

- a) **Retro virus**
- b) Reo virus
- c) Rabies virus
- d) Rota virus

182. Holoenzyme is a combination of:

- a) enzyme and substrate
- b) **Apoenzyme and substrate**
- c) Apoenzyme and coenzyme
- d) None of the above

183. Following statements are correct except.

- a. Viruses multiply only in living cells.
- b. Viral nucleic acid directs cell metabolism to synthesize viral components
- c. Viruses are not able to perform their own metabolic activities.
- d. **Viral genetic information resides only in DNA not in RNA**

184. First Genome sequenced was of

- a. Bacteriophage λ
- b. **Bacteriophage ϕ X 174**
- c. *Haemophilus influenza*
- d. Homo sapiens

185. First bacterial genome sequenced was of

- a. *Salmonella typhimurium*
- b. *Bacillus anthracis*
- c. *Pseudomonas aeruginosa*

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D Haemophilus influenza

186. First human protein produced in micro-organism was:

- a. **Somatostatin**
- b. Insulin
- c. Protopin
- d. None of the above

187. The intercalating dye used to visualize double stranded DNA is

- a. Ethidium bromide
- b. Methylene blue
- c. **Carbol fuchsin**
- d. None of the above

189. The concentration of double stranded DNA molecule which gives absorbance value of 1.0 at 260

nm is:

- a. **33 $\mu\text{g}/\text{ml}$**
- b. 40 $\mu\text{g}/\text{ml}$
- c. 50 $\mu\text{g}/\text{ml}$
- d. Cannot be determined on the basis of absorbance value

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- d. Cannot be determined on the basis of absorbance value

191. Which of the following cells lines the ventricle of the brain?

- a. **Ependymal cell**
- b. Simple squamous cell
- c. simple cuboidal cell
- d. Simple columnar cell

192. The bony demarcation between abdominal and pelvic cavities is:

- a. Pelvic outlet
- b. Pelvic diaphragm
- c. **Pelvic brim**
- d. Pelvic symphysis

193 In which part of the cloaca in birds, bursa of Fabricius opens?

- a. Urodeum
- b. **Proctodeum**
- c. Coprodeum
- d. Vent

194 Which is the space between right and left pleural sac in thoracic cavity?

- a. Omentum
- b. **Mediastinum**
- c. Serous sac
- d. pleural sac

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195 Which of the following is the largest vein in the animal body?

- a. Saphenous vein
- b. Posterior venacava**
- c. Anterior venacava
- d. Mammary vein

196 Which of the following is the longest bone in birds?

- a. Femur
- b. Humerus
- c. Tarsometatarsus
- d. Tibiotarsus**

197. Mendel's work was rediscovered in the year

- (a) 1895
- b) 1900**
- (c) 1905
- (d) 1913

198. Holandric inheritance is characterized by

- (a) Color blindness
- (b) Muscular atrophy
- (c) Hair in ear pinna**
- (d) Baldness

199. Hemophilia is a condition which is inherited as

- (a) Sex linked**
- (b) Sex influenced
- (c) Sex limited

(d) None

200. The method of sex determination in birds is

(a) XO

(b) XY

(c) ZW

(d) XA

201. Linkage between either dominant or recessive alleles is called

(a) Coupling linkage

(b) Repulsion linkage

(c) Complete linkage

(d) Incomplete linkage

202. The diploid chromosome number in chicken is

(a) 38

(b) 74

(c) 78

(d) 60

203. Wry neck is mostly seen in

a) Bovine

b) Caprine

c) Equine

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d) Canine

204. Recommended fetotomy procedure in perosomus elumbis is

a) Amputation of fetal limbs

b) Bisection of pelvis

c) **Transverse division of fetal trunk**

d) Amputation of head and neck

205. Generally stallion attains the puberty at the age of

a) 4 to 7 months

b) 9 to 12 months

c) **12 to 24 months**

d) 36 to 42 months

206. Sertoli cell tumor of the testes in dog secretes

a) Testosterone

b) **Estrogen**

c) Androgen

d) Prolactin

207. Dystrophia adiposogenitalis is observed in the

a) **Dog**

b) Stallion

c) Boar

d) Ram

208. Large number of primary sperm abnormalities are indicative of

a) Ectopic testes

b) **Testicular degeneration**

c) Testicular neoplasm

d) Testicular fibrosis

209. When arable farming is mixed with livestock raising it is known as

- (A) **Mixed farming**
- (B) Sole farming
- (C) Co-operative farming
- (D) Slate farming

210. Villagesurpanch is elected through

- (A) **Secret ballot paper**
- (B) Member
- (C) Co-operative
- (D) Nominated

211. AMUL system of milk marketing follows the principle of

- (A) **Co-operative**
- (B) Mutual work
- (C) Subsidy purpose
- (D) Service

212. GCMMF has made turnover of Rs.

- (A) 5500 crore
- (B) **6700 crore**

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- (C) 5000 crore
- (D) 8000 crore

213. Who is the chairman of GCMMF?

- (A) Amrita patel
- (B) Vipul chaudhary
- (C) **Parthi Bhatol**
- (D) Dr. Kurian

214. Rural dairy extension programmed was the part and parcel of

- (A) **ICDP**
- (B) DPAP
- (C) IRDP
- (D) JRY

215. Electronic identity is made in animal by

- a. Electron microscope
- b. Computer
- c. Radium number
- d. Electronic chip**

216. This measurement of body has close relation with body weight in animal

- a. Body length
- b. Paunch girth
- c. Height at wither
- d. Heart girth**

217. Blanketing is the practice utilize for

- a. Brighter look to body coat
- b. To keep hide in good condition
- c. Refard hair growth
- d. All of above**

218. Wedge shaped body denotes

- a. Beef character
- b. Draught character
- c. Dairy character**
- d. None of above

219. Colostrum feeding in the calf should be done at

- a. Within two hours after calving**

- b. Within three days of calving
- c. Within twelve hours after calving
- d. None of above

220. Age at first kidding in mehsani goat breed is

- a. 18 to 24 months**
- b. 24 to 30 months
- c. 12 to 18 months
- d. 30 to 36 months

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221. Which state rank first in duck population

- a. West Bangal**
- b. Assam
- c. Orissa
- d. Karala

222. Project Directorate on Poultry (PDP) is located at

- a. Izzatnagar
- b. Banglore
- c. Hyderabad**
- d. Anand

223. Central Avian Research Institute (CARI) is located at

- a. Izzatnagar**
- b. Banglore
- c. Hyderabad
- d. Anand

224. Normally which ovary & oviduct is functional in chicken

a. Right ovary and Right oviduct

b. Left ovary and Left oviduct

c. Right ovary and Left oviduct

d. Left ovary and right oviduct

225. Complete Parts of Oviduct in chronological order are

a. Infundibulum-Isthmus-Magnum-Uterus-Vagina

b. Infundibulum-Magnum-Isthmus-Uterus-Vagina

c. Infundibulum-Magnum-Isthmus-Uterus

d. Infundibulum-Magnum-Isthmus-Vagina-Uterus

226. Fertilization is take place in which part of reproductive tract

a. Ovary

b. Isthmus

c. Infundibulum

d. Uterus

227. . Chloramphenicol residues and milk products causes in consumers.....

a) Arthritis

b) Aplastic anemia

c) Blindness

d) Anorexia

228. Well established protozoan disease transmitted through milk.....

a) Cysticercosis

b) Toxoplasmosis

c) Giardiasis

d) *Salmonellosis*

229. Insecticides of group that constitute the principal health hazard to consumers of milk and milk products.....

a) Organic sulphates

b) Organic phosphates

c) Chlorinated hydrocarbons

d) Activated chlorinate

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230. The following acid producing bacteria convert lactose into lactic acid in milk.....

a) *Streptococcus cremoris*

b) *Staphylococcus aureus*

c) *Bacillus cereus*

d) *Clostridium botulinm*

231. The most common bacterium causing joint pain.....

a) *Brucella*

b) *Shigella*

c) *Salmonella*

d) *Clostridia*

232. Galacto toxins in milk are produced by.....

a) *Streptococci spp.*

b) Contact of milk with steel vessels

c) Contact of milk with copper vessel

d) *Serratia spp.*

233. . Praziquental and tartar emetic is drug of choice for :

(a) *Schistosoma sp.*

(b) *Eurytrema sp.*

(c) *Notocotylus sp.*

(d) All of the above

234. In schistosoma which of the following statement is true :

(a) Male is longer than female

(b) Female is longer than male

(c) Female & Male are of same size

(d) None of the above

235. Flame cell is excretory system of which of the following :

(a) Trematodes

(b) Cestodes

(c) Nematodes

(d) Acanthocephala

236. Normally eggs are operculated in which of the following :

(a) Round worm

(b) Trematode

(c) Both of the above

(d) None of the above

237. Out of which of the following are unsegmented :

(a) Round worm

- (b) Trematode
- (c) **Both of the above**
- (d) None of the above

238. 'Gape worm' of poultry is :

- (a) *Ascaridia galli*
- (b) *Heterakis gallinarum*

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(c) ***Syngamus trachea***

(d) *Subulura brumpti*

239. Poll evil in Horse is caused by-

- (A) *Clostridium tetani*
- (B) *Actinomyces bovis*
- (C) *Brucella abortus*
- (D) **Both (B) and (C).**

240. Nutritional roup in Poultry is caused due to deficiency of-

- (A) Vitamin B
- (B) Vitamin C
- (C) Vitamin E
- (D) **Vitamin A.**

241. Epithelial Pearls are seen in-

- (A) Sebaceous cell Adenoma
- (B) **Squamous cell carcinoma**
- (C) Melanoma
- (D) Venereal granuloma.

242. Blue Tongue in sheep is caused by-

- (A) Herpes virus
- (B) **Birna virus**

(C) Picorna virus

(D) **Orbi virus.**

243. Most common Serotype of FMD virus in India is-

(A) A

(B) C

(C) Asia-1

(D) **O.**

244. In which disease post mortem of carcass is prohibited?

(A) Haemorrhagic septicemia

(B) Rinder pest

(C) **Anthrax**

(D) Brucellosis.

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

a. **30-35 °C**

b. 10-20 °C

c. 20-25 °C

d. 40-45 °C

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

a. POP

b. Hanging pin cast

c. Walking cast

d. **Thomas splint**

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

a. 15-20 days

29

b. 20-30 days

c. 40-50 days

d. 80-100 days

248. Typical radiographic sign of osteo-arthritis is

a. Increased joint space

b. Decreased joint space

c. Irregular joint space

d. Irregular joint space with new bony growth

249. The radiographic signs of non union is

a. Radiolucency between fragments

b. Increased radio density of either fragments

c. Placement of fragments side by side

d. Rounding of both fragments

250. The radiographic diagnosis of intestinal obstruction is done by using

a. Barium sulphate

b. Conray -420

c. Urographin

d. Ipamidol

251. . Holocrine secretion:

a. Occurs in sebaceous glands

b. Occurs in endocrine glands

c. Involves little or no loss of cytoplasm

d. All of the above

252. The site of production of cholecystokin

and secretin is the:

- a. Stomach
- b. Pancreas
- c. Small Intestine**
- d. Large Intestine

253. Alkaline mucous glands are found in the submucosa of the:

- a. Ileum
- b. Jejunum
- c. Duodenum**
- d. Cardiac region of the stomach

254. The gallbladder:

- a. Produces bile
- b. Is attached to the pancreas
- c. Stores and concentrates bile**
- d. Produces cholecystokinin

255. Which of the following sphincters is under voluntary control?

- a. Pyloric
- b. Hepatopancreatic
- c. Internal anal
- d. External anal**

30

256. At the junction between the esophagus and the stomach, the epithelial lining changes abruptly from

_____ to _____.

- a. Nonkeratinized stratified squamous; simple**

columnar

b. Simple columnar; nonkeratinized stratified squamous

c. Nonkeratinized simple squamous; stratified columnar

d. Stratified columnar; nonkeratinized simple squamous

257. Which one of the following has maximum natriuretic effect?

a) Spironolactone

b) **Frusemide**

c) Mannitol

d) Acetazolamide

258. The following is not an indication of PGF₂ alpha

a) Synchronization of oestrus

b) **Cystic ovaries**

c) Persistent corpus luteum

d) Induction of abortion

259. In which of the following animals emetics are not used?

a) Rats

b) **Cattle**

b) Horse

c) All of the above

260. Which of the following drugs produces only laxative effect even with increase in dose?

a) Magnesium sulphate

- b) Anthraquinone
- c) Castor oil
- d) **Liquid paraffin**

261. One of the following is not a salt of bunamidine used against cestodial infestation in animals.

- a) Bunamidine P-toluene sulphonate
- b) **Bunamidine hydrochloride**
- c) Bunamide sodium
- d) Bunamidine hydroxynaphthoate

262. Source of bacitracin is

- a) *Streptomyacin rimosus*
- b) ***Bacillus subtilis***
- c) *Streptomyces aureqfaciens*
- d) *Bacillus polymyxa*

263. The most effective chemical disinfectant to kill FMD virus is:

- a. 2 % formalin
- b. 70 % alcohol
- c. **2 % Sodium hydroxide**
- d. 0.5 % phenol

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264. Hendra and Nipah viruses belong to the family:

- a. **Paramyxoviridae**
- b. Orthromyxoviridae
- c. Picornaviridae
- d. Parvoviridae

265. Clinical manifestation of canine parvovirus infection is/are:

- a. Myocarditis in pups
- b. Haemorrhagic diarrhea
- c. Leukopenia
- d. All of above**

266. Bluetongue virus has:

- a. 20 serotypes
- b. 24 serotypes**
- c. 7 serotypes
- d. 9 serotypes

267. Find the wrong match:

- a. Borrel bodies- Fowl pox
- b. Guarneri bodies- small pox
- c. Negribodies- Rabies
- d. All are correct**

268. Bovine diarrhea virus belongs to the family

- a. Flaviviridae**
- b. Reoviridae
- c. Togaviridae
- d. Rhabdoviridae

269. Viral triad include

- a. Rinder pest virus, Measles virus and Canine distemper virus**
- b. Rinder pest virus, Mumps virus, Measles virus
- c. Measles, mumps and Rubella viruses
- d. Rinder pest virus, Reo virus and Rhabdo virus

270. The concentration of single stranded RNA

molecule which gives absorbance value of 1.0 at 260 nm is:

- a. 33 $\mu\text{g}/\text{ml}$
- b. 40 $\mu\text{g}/\text{ml}$**
- c. 50 $\mu\text{g}/\text{ml}$
- d. Cannot be determined on the basis of absorbance value

271. The 260/280 nm ratio of pure DNA sample should be:

- a. Less than 1.8
- b. 1.8**
- c. More than 1.8
- d. 3.0

272. The 260/280 nm ratio less than 1.8 for a DNA sample reflects:

32

- a. Protein contamination**
- b. RNA contamination
- c. Both
- d. None

273. Oligo dT attached to resin is used for the column based isolation of

- a. Prokaryotic DNA
- b. Eukaryotic DNA
- c. Prokaryotic m-RNA
- d. Eukaryotic m-RNA**

274. The chemical that can be used for precipitation of DNA is:

- a. **Ethyl alcohol**
- b. Isoamyl alcohol
- c. Phenol
- d. None

275. The chemical method of DNA sequencing is:

- a. **Maxam Gilbert method**
- b. Sanger method
- c. Both
- d. None

276. Which of the following is a oval articular projection?

- a. **Condyle**
- b. Trochlea
- c. Head
- d. Facet

277. Which of the following is a ventricle of hind brain?

- a. Third ventricle
- b. **Fourth ventricle**
- c. Lateral ventricle
- d. None of above

278. Which of the following is a spherical shallow articular depression?

- a. **Glenoid cavity**
- b. Cotyloid cavity
- c. Articular groove
- d. Semilunar notch

279. The cell membranes is mainly composed of

- a. a single layer of protein molecules
- b. a protein bilayer
- c. a phospholipids bilayer**
- d. a polysaccharide bilayer

280. Which organelles is the site for ATP production?

- a. nucleoli
- b. mitochondria**
- c. gogli complex
- d. ribosomes

33

281. During which stage mitosis do the chromosomes line up in the middle of cell

- a. prophase
- b. anaphase
- c. metaphase**
- d. telophase

282. Which of the following is not a connective tissue?

- a. bone
- b. cartilage
- c. muscle**
- d. blood

283. The point of crossover is known as

- (a) Tetrad
- (b) Chiasma**
- (c) Synapsis

(d) Recombination

284. The maximum probability of making Type-I error is known as

- (a) Confidence interval
- (b) Test of significance
- (c) Level of significance**
- (d) Rejection region

285. Which of the following traits will show higher rate of genetic improvement under mass selection

programme

- a) Service period in cattle
- b) Body weight at 8 week in poultry**
- c) Litter size in pig
- d) Twinning rate in goat

286. Diallele crossing is usually practiced in

- (a) Cattle
- (b) Sheep
- (c) Race horse
- (d) Poultry**

287. Marker assisted selection is more effective for traits of

- (a) High heritability
- (b) Low heritability**
- (c) Medium heritability
- (d) Both b) and c)

288 'Operation Flood' scheme was operated by

- (a) NDDB, Anand**

- (b) NDRI, Karnal
- (c) IVRI, Izatnagar
- (d) NDRI, Bangalore

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289. Inbreeding would more severely affect

- (a) Pre weaning gain in sheep
- (b) Litter size in pig**
- (c) Fat % in cow
- (d) Mature body weight in doe

290. Smooth muscle around spermatic cord to help in thermoregulation of testes is

- a) Tunica dartos
- b) Cremaster muscle**
- c) Pampiniform plexus
- d) Gubernaculum

291. Mitochondria concentrates close to the axoneme and forms the

- a) End piece of the tail
- b) Neck of the sperm
- c) Mid piece of the tail**
- d) Annulus

292. Unnatural tactile stimulation and ejaculation is known as

- a) Onanism**
- b) Coolidge effect
- c) Pederasty
- d) Balling up

293. A complete series of cellular associations

along a seminiferous tubule

- a) **Spermatogenic wave**
- b) Spermiostasis
- c) Spermiogenesis
- d) Cycle of seminiferous epithelium

294. Terminology used for the high per cent of abnormal sperms

- a) **Teratozoospermia**
- b) Aspermia
- c) Asthenozoospermia
- d) Necrozoospermia

295. Inability to withdraw the penis back in to the prepuce

- a) **Paraphimosis**
- b) Posthitis
- c) Phimosis
- d) Preputial prolapse

296. Effect of novelty of stimulus females reduces refractory period in males is known as

- a) Balling up effect
- b) Coolidge effect
- c) **Bruce effect**
- d) Pederasty

297. Sabarmati Ashram gosala founded in

35

- (A) 1815
- (B) **1925**
- (C) 1915

(D) 1945

298. Central council of Gosamverdhan was started

(A) **1952**

(B) 1955

(C) 1958

(D) 1960

299. State farming is managed by

(A) NGO

(B) **Govt.**

(C) People

(D) Middlemen

300. NDRI is located at

(A) **Jaipur**

(B) Kernel

(C) Jabalpur

(D) Cochin

301. CSWRI is located at

(A) **Avikanagar**

(B) Izzatnagar

(C) Modinagar

(D) Mathura

302. In mixed farming income from main enterprise is

(A) **49%**

(B) 50%

(C) 60%

(D) 70%

303. NDDB was established in the year

(A) 1965

(B) 1955

(C) **1975**

(D) 1985

304. Crone is the synonym of the

a. Young sow

b. Broken mouth sow

c. **Old aged ewe**

d. Ewe with loss of teat

305. The average life span of horse is (Years)

a. **2.5 to 18 Years**

b. 3 to 16 Years

c. 3 to 15 Years

d. 3 to 12 Years

36

306. Sunandini is the cross bred developed from

a. Local cattle Kerala

b. **Local cattle Karnataka**

c. Sahiwal

d. Tharparkar

307. Simmental is the breed of cow belong to
breed

a. Exotic dairy cow

b. Exotic beef cow

c. Indigenous dairy cow

d. **Indigenous beef cow**

308. This breed not belong to mysore type cattle

group

- a. Burgur
- b. Alambadi
- c. Khillari
- d. Nimari**

309. Buffalo in philipines is known as

- a. Kerban**
- b. Shin nive
- c. Arana
- d. Carabao

310. This buffalo breed is come under endangered categories

- a. Bhadawari
- b. Jafarabadi**
- c. Banni
- d. Jerangi

311. The inner surface of which section of oviduct is lined with goblet cell that secrete albumen

- a. Isthumus
- b. Magnum**
- c. Uterus
- d. Infundibulum

312. Doubled yolked egg is more common in

- a. Older birds**
- b. Pullet
- c. Both a and b
- d. None of above

313 Hens usually moult in the which following order

- a. **Head-Neck-Body-Wing-Tail**
- b. Head- Neck-Wing-Body-Tail
- c. Tail-Wing-Neck-Head-Body
- d. Tail-Wing-Body-Neck-Head

314 The order of disappearance of pigment (bleaching) from body in

- a. Vent-Eye ring-Ear lobes-Beak-Shanks
- b. **Vent- Beak- Eye ring-Ear lobes-Shanks**
- c. Shanks-Beak-Ear lobes-Eye ring-Vent
- d. Vent-Shanks-Beak-Ear lobes-Eye ring

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315 The pigment first leaves those structures having

- a. **Poor blood circulation**
- b. Best blood circulation
- c. No correlation with blood circulation
- d. Both a and b

315 The uropygial gland is located on dorsal area of

- a. **Tail**
- b. Back
- c. Head
- d. Neck

316 Most chicken breeds have how many number of toes on each foot

- a. **Four**

b. Three

c. **Five**

d. Two

317. Immediate test to judge the quality of milk.....

a) Electro impedance method

b) Alcohol test

c) **Organoleptic tests**

d) Sediment test

318. *Psychrophils* of significance in milk hygiene is/are.....

a) *Pseudomonas*

b) *Listeria monocytogenes*

c) **Both a and b**

d) None of the above

319. Cold sterilization means.....

a) **Sterilization at low temperature**

b) Sterilization by radiations

c) Flash pasteurization

d) None of the above

320. Anthrax is also called as.....

a) **Splenic fever**

b) Desert fever

c) Undulant fever

d) All of the above

321. *Trichinella* cyst can be destroyed by.....

a) **Salting**

b) Smoking

- c) Both of the above
- d) None of the above

322. Scrapie is a.....

- a) Progressive fatal disease of CNS
- b) Disease of young animals

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c) The causal agent is antigenic

- d) All of the above

323. Knott's technique is a concentration method for detection of following parasite in blood

- (a) Trichomonas spp.
- (b) Trypanosoma evansi**
- (c) Microfilariae
- (d) All above

324. Which parasite cause destruction of host tissue by breakage of lymph vessels :

- (a) Chiggers
- (b) Filarids
- (c) Strongylus
- (d) Ascarids**

325. *Oxyuris equi* in horse found in which of the following :

- (a) Small intestine
- (b) Caecum, colon**
- (c) Oesphagus
- (d) Caecum, colon, rectum

326. Presence of eggs of the *Oxyuris equi* can

be diagnosed by which of the following :

- (a) Faeces
- (b) Perianal swab
- (c) Both of the above**
- (d) None of the above

327. Alimentary canal present in which of the following :

- (a) Trematodes
- (b) Cestodes
- (c) Nematodes
- (d) Acanthocephala**

328. Which of the following is the kidney worm of dog :

- (a) *Trichuris sp.***
- (b) *Capillaria sp.*
- (c) *Seteria digitata*
- (d) *Diectophyma renale*

329. In which egg are lemon shaped and with plug on both side of egg :

- (a) *Trichuris sp.***
- (b) *Capillaria sp.*
- (c) *Seteria digitata***
- (d) *Diectophyma renale*

330. Mad itch is mostly a disease of-

- (A) Caprine
- (B) Bovine
- (C) Swine
- (D) Ovine**

331. Tigroid Heart is seen in cattle affected with-
39

- (A) Bovine malignant catarrhal
- (B) Botulism
- (C) Bovine viral diarrhea
- (D) **Foot and mouth disease.**

332. Wooden Tongue in cattle is seen in-

- (A) Actinomycosis
- (B) Botriomycosis
- (C) **Haemorrhagic Septicemia**
- (D) Actinobacillosis.

333. Mode of transmission of IBR virus is-

- (A) **Venereal**
- (B) Inhalation
- (C) Both
- (D) None of the above.

334. Maedi is primarily a disease of-

- (A) Sheep affecting respiratory system
- (B) Cattle affecting reproductive system
- (C) Sheep affecting nervous system
- (D) **Cattle affecting nervous system.**

335. Equine Plague is also called as-

- (A) Equine viral arteritis
- (B) Glanders
- (C) Strangles
- (D) **African Horse sickness.**

336. Sore mouth in cattle is seen in-

- (A) **Blue tongue**

(B) Bovine malignant catarrh

(C) Rinder pest

(D) Vesicular Stomatitis

337. Protective wears for radiography are made up of

a. Lead

b. Iron

c. Zinc

d. **Tungste**

338. The best treatment of long bone fracture is

a. **POP bandages**

b. Intramadulary pinning

c. Intramadulary nailing

d. Bone plating

339. Suturing of lacerated nostril is performed under nerve block

a. Infra-orbital

b. **Retro bulbar**

c. Mandibular

d. Supra-orbital

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340. Extirpation of incisor tooth in cattle is performed under nerve block

a. Infra-orbital

b. **Mandibular**

c. Retro bulbar

d. Cornual

341. The best anaesthetic technique for

laparotomy in cattle is

- a. Local infiltration
- b. Paravertebral
- c. Field block
- d. **Anterior caudal epidural**

342. Docking in adult dog is performed under

- a. Epidural
- b. Local infiltration
- c. **Ring block**
- d. General anaesthesia

343. General anesthesia of equine is performed now a days by using

- a. Chloral hydrate
- b. Xylazine
- c. **Xylazine + Ketamine**
- d. Chlormag

344. Histologically, the stomach wall is unique because it contains:

- a. No lamina propria
- b. 1 extra layer in its muscularis mucosae
- c. 1 extra layer in its muscularis externa
- d. **An adventitia in addition to a double-membraned serosa**

345. The gastric gland cell whose absence could lead to pernicious anemia is the:

- a. Chief cell
- b. **Goblet cell**
- c. Mucous neck cell

d. Parietal cell

346. The layer of the digestive tube wall which contains blood vessels, lymphatic nodules, and a rich

supply of elastic fibers is the:

- a. **Mucosa**
- b. Submucosa
- c. Muscularis Externa
- d. Serosa

347. Mechanical digestion occurs in the:

- a. Stomach
- b. Cecum
- c. Pharynx
- d. **Esophagus**

348. The entry of bile into the duodenum is controlled by the:

- a. Liver sinusoids
- b. **Common pancreatic duct**

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- c. Pyloric sphincter
- d. None of the above

349. A major function of the large intestine is to:

- a. **Secrete digestive enzymes**
- b. Remove waste materials
- c. Regulate the release of bile
- d. Secrete water in order to regulate blood volume

350. Which of the following is not produced by

an enteroendocrine cell?

- a. **Pepsin**
- b. Cholecystokinin
- c. Gastrin
- d. Secretin

351. An anti-estrogen used in advanced breast cancer is

- a) Tamoxifen
- b) Precarbazine
- c) **Mitotane**
- d) Cisplatin

352. A semi synthetic derivative of diterpene is

- a) Clindamycin
- b) Ticarcicillin
- c) Tiamulin
- d) **Lincomycin**

353. Drug used as anthelmintic by producing its effect by GABA mediated hyper polarization is

- a) **Albendazole**
- b) Mebendazole
- c) Fenbendazole
- d) Ivermectin

354. Kanamycin derivate is

- a) **Amikacin**
- b) Spectinomycin
- c) Atramycin
- d) Spiramycin

355. Polymixin E is also called as

- a) Novobiocin
- b) **Bacitracin**
- c) Colistin
- d) Kanamycin.

356. An agent used against anaerobic bacteria as well as protozoa is

- a) Mebendazole
- b) Metronidazole
- c) **Methicillin**
- d) Marbofloxacin

357. Neomycin B is also called as

- a) Kanamycin

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- b) Amikacin
- c) Tobramycin
- d) **Gentamicin**

358. Flaviviridae is

- a. **dsDNA**
- b.ds RNA
- c.ss DNA
- d. ssRNA

359. Following are the morbilli viruses except

- a. Mumps virus
- b. Measles virus
- c.PPRV
- d.Rinderpest virus**

360. Following is/are the character(s) of *Streptococcus*

a. **Gram positive cocci**

b. Catalase –Ve

c. Arranged in chain

d. All of these

361. Cold enrichment is required for the isolation of

a. *Listeria monocytogenes*

b. *Erysipelothrix*

c. *Staph.aureus*

d. ***Clostridium tetani***

362. Bacteria responsible for food poisoning

a. ***Staph.aureus***

b. *Clostridium botulinum*

c. *Bacillus cereus*

d. All of these

363. Dysgonic species of Mycobacterium is

a. *M.bovis*

b. ***M.avium***

c. *M.tuberculosis*

d. *M.phlei*

364. Satellite growth on blood agar plate in presence of *Staph. aureus* is characteristic of

a. Pasteurella

b. **Haemophilus**

c. Actinobacillus

d. Mycoplasma

365. The di-deoxy chain termination method of DNA sequencing is:

- a. Maxam gilbert method
- b. Sanger's method
- c. Pyrosequencing method
- d. Nanopore sequencing method**

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366. The pH of Tris saturated phenol used for the purpose of DNA isolation should be:

- a. 5.0
- b. 6.0
- c. 7.0**
- d. 8.0

367. DNA molecule as big as 10 MB can be separated by:

- a. Polyacrylamide gel electrophoresis**
- b. Agrose gel electrophoresis
- c. Pulse Field electrophoresis
- d. None

368. The blotting technique used for the detection of DNA molecule is called:

- a. Southern blot
- b. Northern blot**
- c. Western blot
- d. Eastern blot

369. The blotting technique used for the detection of RNA molecule is called:

- a. Southern blot
- b. Northern blot
- c. Western blot**

d. Eastern blot

370. The blotting technique used for the detection of protein is called:

a. Southern blot

b. Northern blot

c. Western blot

d. Eastern blot

371. In southern blot, the labeled nucleic acid used to detect complementary sequence is called:

a. Template

b. Primer

c. Probe

d. None of the above

372. Which type of tissue covers the external and internal surfaces of the body?

a. connective

b. skin

c. areolar

d. epithelial

373. What is found within the peritoneal cavity?

a. pleural fluid

b. the pericardium

c. peritoneal fluid

d. liquor pericardi

374. Which of the following is a splanchnic bone?

a. sternum

b. patella

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c. os cardis

d. **calcaneus**

375. Which of the following joints is an example of an amphiarthrosis?

a. the temporomandibular joint

b. **Sutures of the skull**

c. between the bodies of the vertebrae

d. ischiopubic symphysis

376. What is the unit of contraction in a muscle?

a. **motor unit**

b. sarcomere

c. origin

d. insertion

377. Which of the following muscle is not a component of the Achilles tendon?

a. semimembranosus

b. biceps femoris

c. **semitendinosus**

d. superficial digital flexor

378. Which of the following structures is not part of the peripheral nervous system?

a. cranial nerve V

b. spinal nerves supplying the intercostal muscles

c. **hypothalamus**

d. a neuromuscular junction

379. The pons, medulla and cerebellum together

form the

- a. forebrain
- b. midbrain
- c. hindbrain
- d. **cerebral hemispheres**

380. Testosterone is secreted by which cell?

- a. islets cells
- b. sertoli cells
- c. **Brunner's glands**
- d. cells of Leydig

381. In the foetal circulation, the shunt that connects the pulmonary artery and aorta is called as

- a. ductus venosus
- b. **foremen ovale**
- c. ductus arteriosus
- d. falciform ligament

382. Genetic drift in small population is an example of

- (a) **Systematic process**
- (b) Dispersive process
- (c) Both
- (d) None

383. The maximum frequency of recombinant progeny is

- (a) 50 %
- 45
- (b) **25 %**

(c) 42 %

(d) 63 %

384. The diploid number of chromosomes are equal in

(a) Sheep and goat

(b) Cattle and goat

(c) Buffalo and sheep

(d) Man and rhesus monkey

385. A negative correlation coefficient between the two variables X and Y indicates that

(a) Large values of X are associated with small values of Y

(b) Large values of X are associated with large values of Y

(c) Small values of X are associated with small values of Y

(d) None of the above answers are correct

386. Which of the following chemical is used as a mutagen?

(a) Mustard gas

(b) Colchicine

(c) FCS

(d) All of these

387. Which of the following is sex linked trait in poultry?

(a) Colour pattern of plumage

(b) Barring pattern of plumage

(c) Comb pattern

(d) Abumin height

388. The difference between mean phenotypic values of the progeny of selected parents and whole of the population before selection is known as

- (a) Intensity of selection
- (b) Standardized selection**
- (c) Selection differential
- (d) None of the above

389. Scent glands, source of pheromones located dorsally and medially at the horns of

- a) Ram
- b) Buck**
- c) Bull
- d) Stallion

390. Sertoli cell produces the protein hormone which suppresses the production of FSH

- a) Androgen binding protein
- b) Inhibin**
- c) Luteinizing hormone
- d) Estrogen

391. Spreading of adherent acrosomal granule over the surface of spermatid nucleus

- a) Golgi phase
- b) Cap phase

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- c) Acrosomal phase**
- d) Maturation phase

392. Infertility in a bull due to Inability to fertilize

- a) Penile deviation
- b) Penile frenulum**
- c) Testicular Hypoplasia
- d) Penile Neoplasm

393. The penile protrusion is followed by

- a) Erection
- b) Mounting
- c) Intromission**
- d) Pelvic thrust

394. The required number of progressive motile sperms at A.I. in cattle is

- a) 50 millions
- b) 30 millions
- c) 10 millions
- d) 3 millions**

395. Presence of musculo membranous attachment on ventral aspect of glans penis to the preputial mucosa

- a) Balanoposthitis
- b) corkscrew penis
- c) Penile tumor
- d) Penile frenulum**

396. Accentrically placed thickening of the acrosome is known as

- a) Diadem defect
- b) Acrosomal cap**

- c) Sterilizing tail stump
- d) Knobbed spermatozoa

397. Flehman's reaction is not observed in

- a) Bull
- b) Boar
- c) Stallion**
- d) Ram

398. Bicornual transverse presentation is more common in

- a) Cows
- b) Buffalo**
- c) Mare
- d) Ewes

399. The first veterinary college was started in the year 1886 at

- (A) Kolkata
- (B) Mumbai**
- (C) Madras
- (D) Ludhiyana

400. The first dairy co-operative was started in the year 1913 at

47

- (A) Anand
- (B) Allahabad**
- (C) Jaipur
- (D) Pune

401. Toxic jaundis is also known as

- (A).Post haepatic jaundis**

(B). **Haepatic jaundis**

(C). Pre haepatjc jaundis

(D). Obstructive jaundis

402. Siderosis means

(A). **Deposition of calcium in lung**

(B). Deposition of iron in lung

(C). Deposition of silicon in lung

(D). Deposition of silver particle in lung

403. Van den Bergh test for obstructive jaundis

(A). Direct

(B). **Indirect**

(C). Biphasic

(D). Both (B) & (C)

404. In abscess which type of necrosis is seen?

(A). **Coagulative necrosis**

(B). Liquifective necrosis

(C). Caseative necrosis

(D). Fat necrosis

405..First change after death is

(A). Alger mortis

(B). **Rigor mortis**

(C). Formation of bloat

(D). Both (B) & (C)

406. Inflammation of crop

(A). **Blephritis**

(B). Ingluvitis

(C). Typhlitis

(D). Gonitis

407. Cart wheel appearance of nucleus found in

- (A). Plasma cell
- (B). **Basophils**
- (C). Eosinophils
- (D). Monocyte

408. Extreme elevation of leucocyte in peripheral blood is known as

- (A). **Shift to left**
- (B). Leukamoid reaction
- (C). Right shift
- (D). Both (A) & (C)

409. Blood in vomitus

- (A). Haematemesis
- (B). **Haemoptysis**
- (C). Epistaxis
- (D). Melena

410. Bleeding from the oviduct is designated as:

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- a) Epitaxis
- b) **Hemosalpinx**
- c) Hematocele
- d) Hematemesis

411. Condition which is hereditary and sex linked in which clotting is delayed:

- a) **Apoplexy**
- b) Hemophilia
- c) Brown induration
- d) Epistaxis

412. On the basis of rainfall, temperature, and soil the country can be divided into ---

Animal husbandry region

- (A) 5
- (B) 6
- (C) 7
- (D) 8

413. Small scale farming also known as

- (A) Family farming
- (B) **Sole farming**
- (C) Individual farming
- (D) Co-operative farming

414. Secretary of Panchayat samity

- (A) **DDO**
- (B) TDO
- (C) Collector
- (D) Mamlatdar

415. National Institute of Rural Development is located at

- (A) Hyderabad
- (B) **Chennai**
- (C) Bangalore
- (D) Jaipur

416. Specialized farm income from main enterprise is

- (A) <50%
- (B) >50%
- (C) 50%

(D) 60%

417. The first Veterinary University was established in the year 1986 at

- (A) Hyderabad
- (B) Trichur**
- (C) Bangalore
- (D) Chennai

418. Contribution of sight in learning is 49

- (A) 80%**
- (B) 87%
- (C) 90%
- (D) 95%

419. Two forms of social stratification

- (A) Cast class
- (B) Color race
- (C) Custom value
- (D) Norm belief**

420. Tegur in Karnataka is the breeding farm for

- a. Gir
- b. Tharparkar
- c. Khillar
- d. None of these**

421. Malas are the professional breeder for

- a. Sahiwal
- b. Red sindhi
- c. Rathi**
- d. Ongole

422. This breed produce the “Primum market milk” due to yellow color of milk

- a. Jersey
- b. Brown swiss
- c. Guernsey
- d. Ayreshire**

423. Ration calculation for individual animal does not require this thing

- a. Weight of animal
- b. Lactation yield**
- c. Pregnanacy
- d. Parity of animal

424. Maize fodder (green) is comes under the grade in quality

- a. Excellent
- b. Good**
- c. Medium
- d. Poor

425. This practice is not comes under milking method

- a. Intermittent milking
- b. Knuckling
- c. Full hand
- d. Stripping**

426. This practice does not required for sexual stimulation in bull

- a. False mount
- b. Changing teaser**

- c. Changing semen collector
- d. Restraining mount

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427. The score points for cow graded "very good" are

- a. **80 to 85**
- b. 85 to 90
- c. 90 to 95
- d. 70 to 80

428. The key village scheme was launched in India during the year

- a. First five year plan
- b. Second five year plan
- c. Fifth five year plan
- d. **Sixth five year plan**

429. Operation flood project received donation of butter oil and scheme milk from

- a. European union
- b. **U. S. A.**
- c. European dairies
- d. European economic community

430 In poultry true stomach is

- a. Gizzard
- b. **Proventriculus**
- c. Crop
- d. Abomasums

431 The end product of protein metabolism in poultry is mainly

- a. **Urea**
- b. Uric acid
- c. Ammonia
- d. Urates

432 Which type of egg producer molt late in the season and rapidly

- a. Good egg producer
- b. **Poor egg producer**
- c. Average egg producer
- d. None of above

433 Which type of egg producer molt early in the season and slowly

- a. Good egg producer
- b. Poor egg producer
- c. Average egg producer
- d. **None of above**

434 Forced molting is done by

- a. Withdrawal of Feed and Water
- b. **Withdrawal of Light**
- c. Increase level of dietary Zinc
- d. All of above

435 Cold room temperature for hatching egg storage is

- a. 48-52 oF
- b. **58-62 oF**
- c. 68-72 oF
- d. 78-82 oF

436 Setter temperature for hatching egg is

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- a. 92.5-93 oF
- b. 99.5-100 oF
- c. 102.5-103 oF**
- d. 97.5-98 oF

437 Hatcher temperature for hatching egg is

- a. 94-95 oF**
- b. 99-100 oF
- c. 98-99 oF
- d. 96-97 oF

438 Physiological zero (0) temperature below which embryo growth is arrested in eggs

- a. 75 oF
- b. 65 oF**
- c. 85 oF
- d. 95 oF

439 Position of hatching egg in setter is

- a. Narrow end up
- b. Broad end up**
- c. Horizontal
- d. Vertical

440. Ematiation in meat is caused by.....

- a) Inadequate intake of nutrients
- b) Pathological conditions
- c) Advanced age of animal**
- d) Over eating

441. *Clostridium botulinum* secretes toxin under.....

- a) Aseptic condition
 - b) Aerobic condition**
 - c) Anaerobic condition
 - d) Aerobic as well as anaerobic condition
442. In sheep the normal arterial blood pressure is.....

- a) 100-110 mm of mercury**
- b) 120-145 mm of mercury
- c) 146-165 mm of mercury
- d) 166-175 mm of mercury

443. Unconventional meat.....

- a) Beef
- b) Mutton
- c) Crocodile meat**

444. Boiling test on meat detect.....

- a) PH
- b) Colour**
- c) Odour

445. Electrical stunning is widely used in.....

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- a) Cattle and poultry**
- b) Pigs and poultry
- c) Buffaloes and poultry

446. Study of organism in relation to their environment is Known as...

- a) Ecology**
- b) Ecosystem
- c) Epornitic

d)Oncology

447. Which disease is Ectoparasitic zoonosis

a) Scabies

b) Taeniasis

c) Both a) & b)

d) None of above

448. How to control reservoir of infection

a) Treatment

b) Health education

c) Both a) & b)

d) None of above

449. Rabies also known as....

a)Lyssa

b)Rage

c)Tallwut

d)All of above

450. Spinose ear tick mainly pathogenic in which of the following stage :

(a) Larval stage

(b) Nymphal stage

(c) Adult stage

(d) All of the above

451. The chief cause of 'strike in the sheep' is which of the following :

(a) Larvae of *Musca sp.*

(b) Larvae of *Sarcopaga sp.*

(c) Larvae of *Lucilia sp.*

(d) All the above

452. Second intermediate host of oviduct fluke are :

- (a) Dragon flies
- (b) Water snail**
- (c) Grasshopper
- (d) None

453. Insects which possess sponging mouth parts and do not bite are :

- (a) Fleas**
- (b) House flies
- (c) Mosquitoes
- (d) Deer flies

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454. Scientific name of horse fly is

- (a) *Tabanus equinum***
- (b) *Oestrus ovis*
- (c) *Simulium sp*
- (d) None of the above

455. Which of the following is a non granular WBC?

- a. Lymphocytes**
- b. Neutrophil
- c. Basophil
- d. Eosinophil

456. In Classification of helminthes the higher taxa platyhelminthes containing helminthes of veterinary importance are :

- (a) Flat worm**

- (b) Round worm
- (c) Thornyheaded worms**
- (d) None

457. In Filarial nematode, the life cycle is.....

- (a) Direct
- (b) Direct and Indirect**
- (c) Indirect
- (d) None

458. Morocco leather condition is caused by :

- (a) Hemonchus contortus*
- (b) Ostertagia ostertagia*
- (c) Cooperia curtesi***
- (d) None

459. *Strongylus vulgaris* is responsible for :

- (a) Colic in ruminants**
- (b) Paralysis in horse
- (c) Colic in horse
- (d) None

460 *Bunostomum trigonocephalum* is hook worms of :

- (a) Sheep and Goat
- (b) Cattle
- (c) Dog**
- (d) None

461. Disease caused by *Clostridium septicum* is-

- (A) Black Quarter
- (B) Enterotoxaemia
- (C) Braxy**

(D) Tetanus

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462. Sulphur granules in yellowish pus is seen in

-

(A) Glanders

(B) Strangles

(C) Staphylococcosis

(D) Actinomycosis

463. Toxins of organism causes peripheral nerve paralysis in cattle-

(A) Botulism

(B) Tetanus

(C) Both

(D) None of the above

464. Diamond skin disease is primarily a disease of-

(A) Horse

(B) Lion

(C) Sow

(D) Turkey

465. In Johne's disease, corrugation is not the feature in-

(A) Cattle

(B) Sheep

(C) Horse

(D) Both (B) and (C)

466. Most susceptible species for Haemorrhagic septicemia-

- (A) Sheep
- (B) **Buffalo**
- (C) Cattle
- (D) Pig

467. Erythritol sugar plays important role in pathogenesis of-

- (A) ***Clostridium spp.***
- (B) *Brucella spp.*
- (C) *Bacillus spp.*
- (D) *Corynebacterium spp.*

468. Substance responsible for increase penetration of Lyssa virus-

- (A) **Hyaluronidase**
- (B) Erythriol
- (C) **Protagen**
- (D) Amylase

469. Crop mycosis in poultry is caused by-

- (A) Bacteria
- (B) **Mycoplasma**
- (C) Fungi
- (D) Virus

470. Brooder's pneumonia in poultry is caused by-

- (A) *Candida albicans*
- (B) ***Aspergillus fumigatus***
- (C) *Haemophilus paragallinarum*

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- (D) *Pasturella multocida*

471. The best general anesthetic for canine is

- a. Xylazine
- b. Thiopental
- c. Acepromazine
- d. **Ketamine**

472. To deliver live pups, cesarean section is performed under

- a. Thiopentone
- b. **Pentobarbitone**
- c. Acepromazine
- d. Diazepam + Local anesthesia

473. To capture wild elephant the anesthetic used is

- a. Xylazine
- b. **Etorphine**
- c. Medazolam
- d. Morphin

474. The sedation in camel is performed by using xylazine intravenously

- a. **2-3 ml**
- b. 8-10 ml
- c. 25 -30 ml.
- d. 30-40 ml

475. The best inhalation anesthetic for closed circuit is

- a. Cyclopropane
- b. Ether
- c. **Nitrous oxide**

d. Chloroform

476. Deep chested dog is prone to following surgical condition

- a. Intestinal obstruction
- b. Diaphragmatic hernia
- c. Gastric dilatation and torsion
- d. **Gastric ulcer**

477. Pathognomic sign of sharp molar is

- a. Quidding
- b. Halitosis
- c. Salivation
- d. **All of above**

478. 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

479. Continuous lacrimation in canine is characteristic sign of

- a. **Obstruction of lacrimal duct**
- b. Entropion

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- c. Conjunctivitis
- d. Ectropion

480. Myringotomy in canine is performed for the correction of

- a. Otitis interna

- b. Otitis media
- c. Otitis externa
- d. **Othaematoma**

481. Each of the following is an amino acid derivative EXCEPT:

- a. Epinephrine
- b. Melatonin
- c. Thyroxine
- d. **TSH**

482. Which of the following hormones does not act via a second messenger system?

- a. Glucagon
- b. **Epinephrine**
- c. GH
- d. Testosterone

483. What hypophyseal structure receives signals from the hypothalamus via the hypophyseal portal system?

- a. Follicular medulla
- b. Adenohypophysis
- c. Neurohypophysis
- d. **Pars intermedia**

484. Low blood glucose typically results in the secretion of all of the following EXCEPT:

- a. **Glucagon**
- b. Thyroxine
- c. hGH

d. PTH

485. What hormone increases intestinal calcium absorption?

a. Calcitriol

b. Calcitonin

c. Parathormone

d. Pancreatic polypeptide

486. The _____ cells of the pancreas secrete insulin.

a. Chief

b. Principal

c. Alpha

d. Beta

487. Oxytocin is secreted by the:

a. Adenohypophysis

b. Neurohypophysis

c. Zona glomerulosa

d. Pars intermedia

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488. Hyposecretion of cortisol can cause:

a. Cretinism

b. Diabetes mellitus

c. Diabetes insipidus

d. Addison's disease

489. The space in the middle of the thoracic cavity where the heart resides is the:

a. Pericardial cavity

b. Pericardium

- c. Pleural Cavity
- d. Mediastinum

490. The foramen ovale in the fetal heart is located in the:

- a. Right atrium
- b. Left atrium
- c. Interventricular septum
- d. Interatrial septum

491. In body netobimin is converted into

- a) Albendazole
- b) Mebendazole
- c) Fenbendazole
- d) Lobendazole

492. Which one of the followings not an anaesthetic?

- a) Phencyclidine
- b) Xylazine
- c) Ketamine
- d) Cyclopropane

493. Diazepam does not possess the following action

- a) Sedative
- b) Anticonvulsant
- c) Analgesic
- d) Anxiolytic

494. 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

495. The following is not a phenothiazine derivative

a) Triflupromazine

b) Chlorpromazine

c) Promazine

d) Reserpine

496. Xylazine does not have the following effect

a) Analgesic

b) Muscle relaxant

c) Sedative

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d) Antipyretic

497. Which one of the following has high water to lipid partition coefficient?

a) Chlorpromazine

b) Ether

c) Halothane

d) None of the above

498. With which of the following anaesthetic is eructation reflex not affected.

a) Ketamine

b) Xylazine

c) Phenobarbitone

d) Equithesin

499. Which of the following statements is false?

a) Thiopentone is ultra short acting barbiturate

b) Thiopentone is administered by intramuscular route

c) Thiopentone administered typically shows barbiturate apnoea.

d) Thiopentone is yellowish powder used as a sodium salt.

500. Which one of the following is an example of physical antagonism?

a) Administration of activated charcoal in poisoning

b) Relief of acidity using antacids

c) Administration of Atropine in organophosphate poisoning

d) None of the above

501. The body region of the sheep in which best quality wool is found

a. Breech

b. Shoulder

c. Head

d. Tail

502. A growing female sheep between sixth month to maturity.

a. Doeling

b. Wedder

c. Hogget

d. Lamb

503. Native place of sannem is

a. England

b. Switzerland

c. U. S. A.

d. China

504. Major breeding season of Indian sheep is

a. June to august

b. December to January

c. March to april

d. Year round

505. The term used for meat of rabbit is

a. Mutton

b. Pork

c. Chevon

d. Venison

59

506. Location of rabbit breeding farm in Gujarat

a. Bhuj

b. Ankleshwar

c. Morbid

d. Mandvi

507. India has total number of sheep breed

a. 40

b. 15

c. 20

d. 28

508. Gurej sheep breed found in

a. J & K

b. Himachal Pradesh

c. Hariyana

d. Punjab

509. Spiti is the horse breed found at

a. J & K

b. Himachal Pradesh

c. Hariyana

d. Punjab

510. The disease found in sheep during monsoon

a. Foot rot

b. F. M. D.

c. Enterotoxaemia

d. Rinderpest

511. Bacteria which require living medium for their growth is

a. Mycoplasma and Leptospira

b. Chlamydia and Rickettsia

c. Rickettsia and Mycoplasma

d. None of these

512. Pallisade arrangement is characteristic of

a. Corynebacterium

b. *E.coli*

c. Campylobacter

d. Listeria

513. Mycoplasma organisms are pleomorphic in nature due to

a. Absence of cell wall

b. Absence of rigid cell wall

c. Small in size

d. Species specific in nature

514. Periodic ophthalmia in horses is a sequel of

a. Glanders

b. Mycoplasmosis

c. Equine leptospirosis

d. Babesiosis

515. Chlamydia can be stained with following stains except:

a. Gram's stain

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b. Macchiavello stain

c. Gimenez stain

d. Castaneda stain

516. Tuberculin test is based on

a. Delayed hypersensitivity

b. Arthus reaction

c. Anaphylactic reaction

d. All of above

517. Calf hood vaccination is advisable for

a. Brucellosis

b. Salmonellosis

c. Pasteurellosis

d. Neonatal calf diarrhoea

518. The germ tube production is characteristic of

a. *Candida albicans*

b. *Corynebacterium pyogenes*

c. *Cryptococcus neoformans*

d. Pseudomonas aeruginosa

519. Experimentally *Mycobacterium leprae* can be cultivated on

- a. Bacterial media with mycobactin.
- b. Cell culture system.
- c. Nine banded armadillo**
- d. None of the above

520. Viruses that exist in cells and cause recurrent disease are considered

- a. Oncogenic
- b. Cytopathic
- c. Latent**
- d. Resistant

521. For transformation reactions competent *E. coli* cells can be prepared by treating log phase *E. coli*

cells with:

- a. Calcium Chloride**
- b. Magnesium Chloride
- c. EDTA
- d. None of the above

522. A DNA molecule from external source can be inserted into the host cells by following methods:

- a. Heat shock treatment
- b. Electroporation
- c. Lipofection
- d. All of the above**

523. In a PCR reaction two short oligonucleotide used which flank the DNA sequence to be amplified

is called:

- a. **Primer**
- b. Probe
- c. Template

61

d. None of the above

524. The source of *Taq polymerase* used in the PCR reaction is:

- a. *E. coli*
- b. ***Thermus aquaticus***
- c. Both
- d. None

525. The source of “Reverse transcriptase” enzyme used for c-DNA synthesis is:

- a. Moloney murine leukemia virus (MuLV)
- b. Avian myeloblastosis virus (AMV)
- c. **Both**
- d. None

526. Quantitative studies using PCR technique can be done with:

- a. RT-PCR
- b. **Real Time PCR**
- c. Micro array
- d. None of the above

527. Most type II restriction endonucleases

recognize and cleave DNA within particular sequence of 4-8 nucleotides which have two fold rotational symmetry. Such sequences are called:

- a. **Palindromes**
- b. Short tandem repeats
- c. Both
- d. None

528. For restriction analysis of DNA molecule, the type of “restriction endonucleases” used are:

- a. Type I RE
- b. **Type II RE**
- c. Type III RE
- d. None

529. c-DNA can be synthesized on a RNA template using following primers:

- a. Sequence specific primers
- b. Oligo dT
- c. Random hexamers
- d. **All of the above**

530. *Isoschizomers* are Restriction enzymes which:

- a. **Recognize and cut the same sequence**
- b. Recognize the same sequence but cut site vary
- c. Both
- d. None

531. What is the name of the main lymphatic

duct that arises in the abdomen?

- a. tracheal duct
- b. **cisterna chyli**
- c. right lymphatic duct
- d. cisterna magna

532. Which part of the respiratory system is also responsible for the production of sound?

62

- a. hyoid apparatus
- b. eustachian tube
- c. pharynx
- d. **larynx**

533. Which muscle is responsible for increasing the volume of the thoracic cavity during inspiration?

- a. **diaphragm**
- b. hypxial
- c. external oblique
- d. epaxial

534. The basin shaped structure in the center of the kidney is called

- a. cortex
- b. hilus
- c. **pelvis**
- d. medulla

535. In which layer of the skin are the sensory nerve endings found?

- a. hypodermis

- b. epidermis
- c. dermis**
- d. subcutis

536. Which is the most developed special sense in the birds?

- a. sight**
- b. touch
- c. smell
- d. taste

537. The space between the incisors and the cheek teeth of rabbits and rodents is known as the

- a. diastema**
- b. philtrum
- c. dewlap
- d. acromion

538. Visceral skeleton present in camel

- a. Os penis
- b. Os phrenic**
- c. Os cardis
- d. Os rostrum

539. Which is the type of placenta present in bitch?

- a. Zonary**
- b. Diffuse
- c. Discoidal
- d. Cotyledonary

540. Total number of incissor teeth in ox

- a. Six
- b. Four
- c. Eight**
- d. Ten

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541. Outer covering of the nerve is

- a. Endoneurium
- b. Perineurim
- c. Epineurium**
- d. Ependineum

542. Which one of the following is a exoskeleton?

- a. Hoof**
- b. Metacarpus
- c. Sternum
- d. Ulna

543. Which one of the gland is a apocrine gland?

- a. Mammary gland**
- b. Testes
- c. Parotid salivary gland
- d. Pancreas

544. Part of the peritoneum that covers the fallopian tube with abdominal cavity:

- a. Mesometrium
- b. Mesosalphinx**
- c. Mesoovarium
- d. Broad ligament

545. Which of the following plays a part in thermoregulation?

- a. Hair
- b. Claws
- c. Sebaceous gland
- d. Meibomian gland

546. Which of the following is used for predicting future performance of individuals

- (a) Heritability
- (b) Repeatability**
- (c) Genetic correlation
- (d) None of the above

547. The response to selection increases when

- (a) Proportion of individuals selected decreases
- (b) Proportion of individuals selected increases**
- (c) Heritability of the trait is low
- (d) None of the above

548. The heritability of a character in narrow sense will be more when it is controlled by

- (a) Genes with non-additive effects
- (b) Genes with additive effects**
- (c) Both (a) and (c)
- (d) None of the above

549. The genotypic value of quantitative traits is

64

- (a) Sum total of effects
- (b) sum total of gene effects**
- (c) Sum total of additive effects
- (d) None of the above

550. The specific combining ability of a line is due to gene effects

- (a) Epitasis
- (b) Dominance
- (c) Over-dominance
- (d) **All of above**

551. The dry period in buffaloes can be reduced by

- (a) Individual selection
- (b) **Better management**
- (c) Family selection
- (d) Progeny testing

552. The change in the fat % when selection is made for higher milk yield is due to

- (a) Natural selection
- (b) (b) Direct selection
- (c) **Indirect selection**
- (d) None of these

553. The estimate of heritability of egg yield cannot be obtained by

- (a) **Paternal half-sib correlation**
- (b) Regression of daughter on dam
- (c) Regression of daughter on sire
- (d) Maternal half-sib correlation

554. The precision of heritability estimate is known by its

- (a) **Standard error**

- (b) Magnitude
- (c) Method of estimation
- (d) Deviation from

555. For selection of individuals for traits measured after life, we will prefer

- (a) Indirect selection
- (b) Family selection
- (c) Pedigree selection
- (d) **Any of these**

556. The regression of offspring on mid parent provides the estimate of

- (a) $. h^2$
- (b) $. h^2$
- (c) **h^2**
- (d) $\bar{O} h$

557. The accuracy of estimating breeding value of a sire increased by

- (a) Decreasing the number of sires under test
- (b) Decreasing the number of progeny of sire
- (c) **Increasing the number of progeny of sire**

65

- (d) None of the above

558. The Osborne index for cockerel selection is based on information from

- (a) Individual performance and dam and sire families.

- (b) **Dam and sire families**
- (c) Progeny and pedigree

(d) Individual performance and pedigree

559. The generation interval can be reduced by using

(a) **Genetic markers**

(b) Progeny information

(c) Life time information

(d) Multi-trait selection

560. Diploid number of chromosomes in sheep is

(a) 60

(b) **54**

(c) 38

(d) 64

561. Both hind limbs retained in the uterus beneath the body of the posteriorly presented fetus

a) Dog sitting posture

b) **Breech presentation**

c) Poll presentation

d) Wry neck

562. Acute angulation of the vertebral column of the fetus causing dorsal approximation of its head and

tail is a

a) Perosomus elumbis

b) Amorphus globosus

c) Otter calf

d) **Schistosomus reflexus**

563. The release of which hormone is associated with the Ferguson's reflex .

- a) Estroegn
- b) **Oxytocin**
- c) Progesterone
- d) Relaxin

564. Penile Transmissible Neoplasia is observed in the

- a) Ram
- b) Stallion
- c) **Dog**
- d) Bull

565. Androgen Binding protein is secreted by

- a) Ley dig cells
- b) **Sertoli cells**
- c) Spermatogonia
- d) Efferent ducts

566. Eversion of galeacapitis and crater shaped depressions in the nucleus

- a) Dag defect

66

- b) **Diadem defect**
- c) Corck screw defect
- d) Abaxial defect

567. Effecting a change in the presentation is known as

- a) Rotation
- b) **Version**

c) Extension

d) Flexion

568. Non dilation of cervix causing dystocia in ewes is known as

a) Vertex

b) Foot nape

c) Ring womb

d) wry neck

569. Pattern assumed by the semen upon drying on a glass slide

a) Fern pattern

b) Crenellation pattern

c) Cork screw pattern

d) Zig Zag pattern

570. Test used to know the functional integrity of sperm membrane

a) Sperm mucus penetration test

b) Hypo osmotic swelling test

c) Hamster egg penetration test

d) High temperature viability test

571. The end of the diestrus period is due to

a. Recruitment of the ovulatory follicular wave.

b. A decrease in estradiol negative feedback.

c. Regression of the corpus luteum.

d. An increase in estradiol levels coming from the preovulatory follicle.

572. In the mare, transition from the non-

breeding to the breeding season is caused by

- a. **A decrease in melatonin.**
- b. A decrease in the day length.
- c. A switch from positive to negative feedback by estradiol.
- d. The presence of progesterone coming from the corpus luteum.

573. Granulosa cells are similar to Sertoli Cells in that both

- a. **Have FSH receptors.**
- b. Have LH receptors.
- c. Produce testosterone.
- d. Have very low levels of cAMP.

574. The blood testis barrier is due to

- a. The inhibition to growth of blood vessels in the seminiferous tubules.
- b. The presence of gap junctions between Sertoli cells.
- c. **The presence of tight junctions between Sertoli cells.**
- d. The basement membrane between the Sertoli cells and the interstitial space where the Leydig cells are located.

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575. It has been demonstrated that dogs can be trained to detect estrus in cattle. Which of the following

senses is being used by the dog to accomplish this task?

- a. **Smell**
- b. Sight
- c. Touch
- d. Hearing

576. Intense educational activity for motivation and mobilization of community to action is known as

- (A) Awareness
- (B) **Campaign**
- (C) Demonstration
- (D) G.D.

577. Diagram presentation of facts or ideas is known as

- (A) Chart
- (B) **Poster**
- (C) Diagram
- (D) Book

578. A statement of policy to guide decision and action in a consistent manner is

- (A) Principle
- (B) Law
- (C) **Philosophy**
- (D) Hypothesis

579. Call made by farmers at the veterinary hospital for getting information is called

- (A) **Office call**
- (B) Personal call
- (C) Community call

(D) Tall call

580. A visual display which is never used alone for teaching programmed is

(A) Chart

(B) Flipchart

(C) Poster

(D) Banner

581. Cheapest, Oldest & most effective aids of teaching is

(A) **Black Board**

(B) White board

(C) Display board

(D) Interactive board

582. A Statement of assumption validity of which is yet to be tested is known as

(A) **Hypothesis**

(B) Theory

(C) Principles

(D) Philosophy

583. A miniature replica of an object is called

(A) Specimen

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(B) **Model**

(C) Sample

(D) Picture

584. A System of social relationship in and through which we live is known as

(A) **Society**

(B) Communication

(C) Cast

(D) Creed

585. Combination of seeing, hearing, and doing may help to retain-----in teaching Learning

(A) 50%

(B) 60%

(C) 70%

(D) 80%

586. AMUL was established in

(A) 1846

(B) 1848

(C) 1850

(D) 1950

587. Air and water are nature of goods

(A) Material

(B) Nominated

(C) Free

(D) Consumable

588. The demand is salt is

(A) Inelastic

(B) Elastic

(C) Prefect elastic

(D) Non elastic

589. AGMARK indicates

(A) Quality & Purity

(B) Quality

(C) Quantity

(D) Purity

590. Top level function is known as

(A) Management

(B) Administration

(C) Bureaucracy

(D) Line of control

591. Herd registration scheme in Gujarat is running for the breed

a. Mehasana buffalo

b. Gir cattle

c. Dangi cattle

d. Banni buffalo

592. The number of calving pen required on dairy farm depends on

69

a. Breedable females

b. Fertility rate

c. Calving interval

d. All of above

593. Dehorning in calves can be done at

a. 1 to 5 days

b. 7 to 0 days

c. 11 to 20 days

d. More than 30 days

594. The pulsation ratio in milking machine should be kept within the limit of

a. 1 : 1

b. 2.5 : 1

c. **Both a & b**

d. None

595. The major input for maximum contribution to cost of milk production

a. Labour

b. Electricity

c. **Feeding**

d. Breeding

596. The buffalo population (Millions) in Gujarat state as per livestock census 2007

a. **8.77**

b. 7.97

c. 2.01

d. 4.64

597. Nilgai belong to the animal in category

a. **Wild ruminant**

b. Wild non-ruminant

c. Domestic ruminant

d. Domestic non-ruminant

598. The gestation period (days) of leopard is

a. 62 – 65

b. **92 – 95**

c. 112 – 120

d. 150 -180

599. The birth weight of piglet in kg is

a. 2 – 4 kg

b. 3 – 6 kg

c. **1 – 2 kg**

d. 0.5 – 1 kg

600. Stag is the term utilize for

- a. Castrated goat
- b. Castrated horse
- c. Castrated sheep
- d. Castrated pig**

70

601. Tongue rolling is the type of behaviour in cow

- a. Detrimental
- b. Stereotyped**
- c. Retired
- d. Apathetic

602. Pig farming is the most developed in

- a. Himachal Pradesh
- b. West Bengal**
- c. Bihar
- d. Madhya Pradesh

603. Certification agency in organic farming is

- a. IARI
- b. NDRI
- c. APEDA**
- d. NPDP

604. Hissardale crossbred sheep breed developed from

- a. Australian merino
- b. Bikaneri
- c. Both**

d. None of above

605. Fat tailed sheep breed found in India is

- a. Macheri
- b. Chokla
- c. Bhakarwal**
- d. Marwari

606 A narrow band surrounding the yolk that is almost void of blood vessels is known as

- a. Stream
- b. Stigma**
- c. Strake
- d. Strike

607 Chickens lay eggs on successive days is known as

- a. Pause
- b. Clutches**
- c. Persistency
- d. Both b and c

608

Sometime the infundibulum loses power to pick up a yolks, and yolks accumulate in body cavity. Such hen are known as

- a. Poor layer
- b. External layer
- c. Internal layer**
- d. Faulty layer

609 Pigments responsible for egg shell colour is produced by

a. Magnum

71

b. Vagina

c. Uterus

d. Isthmus

610 The brown colour of eggshell is due to which pigments

a. Carotenoids

b. Porphyrin

c. Xanthophylls

d. None of above

611 Preheating or pre-warming of egg is done

a. Before candling

b. Before Cold storage

c. Before Setting

d. Before Hatching

612

Eggs of average size and quality incubated in air with 50 to 60 % relative humidity, they will lose approximately _____ % of their initial weight in 19 days of incubation

a. 6 %

b. 12 %

c. 18 %

d. 24 %

613 Best time for artificial insemination to get maximum fertility in poultry is

a. Early morning

- b. Before noon
- c. After Noon
- d. Late evening**

614 The ammonia concentration in the poultry house should not be more than

- a. 2.5 ppm
- b. 25 ppm**
- c. 50 ppm
- d. 75 ppm

615 Nitrogen fixation is poor in

- a. Cage house**
- b. Deep litter house
- c. Both A & B
- d. None of the above

616 Pullets grown during the period when most of the days have decreasing light are known as

- a. In season flocks**
- b. Out season flocks
- c. Mid season flocks
- d. Odd season flocks

617 Pullets grown during the period when most of the days have increasing light are known as

- a. In season flocks
- b. Out season flocks**
- c. Mid season flocks
- d. Odd season flocks

618 Birds were placed in the laying house just before the onset of egg production is known as

a. **Housing**

b. Shifting

72

c. Laying

d. None of above

619

Replacing old males in a flock with a set of new and younger male after about two-thirds of the egg production period is known as

a. Replacement of flock

b. **Spiking the flock**

c. Placement of flock

d. All of above

620

Distance between the bulbs in poultry house should be _____times the distance from the bulb to

the bird level.

a. 0.5 times

b. 5.0 times

c. 15 times

d. **1.5 times**

621. Herpes simplex seen in....

a) Cattle

b) Dog

c) Elephant

d) **None of above**

622. Volumetric method for determination of

fat% of milk.

- a. Waste fall balance
- b. Soxhlet method
- c. Richmond sliding method
- d. **Garber method.**

623. Which of the disinfectant is effective against wide range of micro organism in floor, wall and equipments

- a) quick time
- b) cresol 2-3% in hot water
- c) **costic soda 5%**
- d) Nil

624. Coagulation of water by chemical is essential in

- a) slow sand filter
- b) **rapid sand filter**
- c) boiling
- d) None

625. The desirable limit for fluoride should be (mg/litre)

- a) **0.2**
- b) 1.5
- c) 2.5
- d) 0.6-1.8

626. In strong sewage B.O.D. is (mg/litre)

- a) 50
- b) **100**

c) **300**

d) None

73

627. Who was first chief of VPH in WHO

a) Dr.Guerin

b) Dr.Daniel E.Salmon

c) Dr.Karl F.Meyer

d) **Dr.Martin Kaplan**

628 Example of cyclozoonosis...

a) Toxoplasmosis

b) Taeniasis

c) Echinococcosis

d) **Both b) & c)**

629. Example of algal zoonosis

a) Scrub typhus

b) Actinomycosis

c) Fascioliasis

d) **Protothecosis**

630. In anthrax by which reaction Bacillus organism detected in blood smear

a) **Mac Fadyean's reaction**

b) Zeil Neelsen staining

c) Ascoli's precipitation test

d) None of above

631. Medium which is used in isolation of T.B. organism

A)XLD agar

b) **LJ medium**

c) EMJH medium

d) blood agar

632. Greenish colors of water is developed due to...

a) Iron

b) Organic matter

c) Algae flora

d) None of above

633. Ozone layer found at which height

a) 10-20 km

b) 70-80km

c) 40-50km

d) 90-100km

634. Optimum temperature range for adult pig is between

a) 0-30c

b) 40-50c

c) 4-30c

d) 30-35c

635. Which is Iron bacterium

a) Crenothrix

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b) Gellionella

c) Klebsiella

d) Both a) & b)

636. Incineration of carcass done by heating at which temperature

a) 6000c

b) 8000c

c) 13000c

d) 10000c

637. *Oxyuris equi* are commonly known as :

(a) Pin worm

(b) Caecal worm

(c) Stomach worm

(d) None

638. The condition 'Sweating blood' in horse is caused by :

(a) *Parafilaria equi*

(b) *Dirofilaria immitis*

(c) *Parafilaria multipapillosa*

(d) None

639. *Seteria labiato-papillosa* of cattle causing :

(a) Lumber paralysis in horse

(b) Lumber paralysis in sheep and goat

(c) Lumber paralysis in cattle

(d) None

640. The largest nematode of domestic animal is :

(a) *Macracanthorhynchus hirudinaceus*

(b) *Diectophyma renale*

(c) *Ascaris sum*

(d) None

641. Acute fasciolosis is common in :

(a) Cattle

(b) Sheep

(c) Buffalo

(d) Horse

642. Triclabendazole is a drug of choice for :

(a) Liver fluke

(b) Haemonchus nematode

(c) Lung worm

(d) None

643. The blood fluke are usually present in :

(a) Hepatic vein

(b) Portal vein

(c) Mesenteric vein

(d) None

644. *Taenia multiceps* is tape worm of dog and it's larval stage present in sheep/cattle

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is known as :

(a) *Coenurus serialis*

(b) Hydatid

(c) *Coenurus cerebralis*

(d) None

645. Sputum is a diagnostic material in two infections of dog

(a) *Ancylostoma caninum* and *Dictyophyma renale*

(b) *Filaroides* and *Angiostrongylus*

(c) *Schistosoma nasale* and *Stephanurus*

(d) None

646. Smallest and most pathogenic tapeworm

of poultry is :

- (a) *Amoebotaenia*
- (b) *Davainea proglotina***
- (c) *Raillietina echinobothrida*
- (d) None

647. A common term for myiasis caused by members of the calliphoridae is :

- (a) Blow-fly Strike**
- (b) Pediculosis
- (c) Mange
- (d) None

648. The larval of *Oestrus ovis* are commonly referred to as :

- (a) Gnats
- (b) Warble
- (c) Bots**
- (d) None

649. The condition 'false gid' in sheep is caused by :

- (a) *Multiceps multiceps*
- (b) *Oestrus ovis* larva**
- (c) *Setaria digitata*
- (d) None

650. *Ornithodoros moubata* is :

- (a) Hard tick
- (b) Soft tick**
- (c) Mites
- (d) Flea

651. Animal Protozoa are unicellular and they are :

- (a) **Eukaryotic**
- (b) Prokaryotic
- (c) Monera
- (d) None

652. Circling disease in cattle is caused by-

- (A) *Listeria monocytogenes*
- (B) *Erysipelothrix rhusiopathiae*
- (C) *Streptococcus equi*

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- (D) *Chlamydia psittacii*

653. Intranuclear inclusion bodies are seen in-

- (A) Pox diseases
- (B) Herpes virus infection
- (C) **Adeno virus infection**
- (D) Lyssa virus infection

654. Negri bodies are seen in Rabies which are-

- (A) Intranuclear
- (B) **Intracytoplasmic**
- (C) Both
- (D) May be intranuclear or intracytoplasmic

655. Enlargement of Bursa of fabricius in poultry is seen in-

- (A) CRD
- (B) IB
- (C) RD
- (D) **IBD**

656. Zebra marking is predominant feature of-

- (A) Johne's disease
- (B) Tuberculosis
- (C) Rinder pest**
- (D) Both (A) and (C)

657. CBPP differs from CCPP in-

- (A) Both occur in same species
- (B) Sequestra formation**
- (C) Mode of transmission
- (D) Pathogenesis

658. Which bacterium is predisposed by *Fasciola hepatica* infestation-

- (A) *Bacillus spp.*
- (B) *Clostridium spp.***
- (C) *Leptospira spp.*
- (D) *Pasturella spp.*

659. Which is the most potent aflatoxin-

- (A) M1
- (B) M2
- (C) B1**
- (D) B2

660. Curled toe paralysis in chicken is due to deficiency of-

- (A) Vitamin B12
- (B) Vitamin B1
- (C) Niacin
- (D) Vitamin B2**

661. Mn deficiency in chicken will lead to-

(A) Pica

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(B) Star grazing condition

(C) Crazy chick disease

(D) Slipped Tendon

662. Phosphorous deficiency in soil will predispose the cattle to-

(A) Haemorrhagic septicemia

(B) Botulism

(C) Anthrax

(D) Mucosal disease

663. Black head disease is predominately a disease of-

(A) Cattle caused by Parasite

(B) Poultry caused by Parasite

(C) Horse caused by Virus

(D) Pig caused by Virus

664. Which of the following is correctly matched

-

(A) Tubercular lesions are calcified-Buffalo

(B) Johne's disease-Foul smelling diarrhea

(C) Avian spp.- Dry pus

(D) Lamb dysentery- Clostridium perfringens type D

665. Post mortem of chick shows foul smelling yellow-brown watery Yolk, fibrinous perihepatitis and pericarditis, suspect the disease

(A) Infectious Coryza

- (B) Fowl Typhoid
- (C) Coli Bacillosis**
- (D) Infectious Bronchitis

666. Haemorrhages at the tip of the proventricular gland is the pathognomic lesion s seen in-

- (A) Ranikhet disease**
- (B) Chronic respiratory disease
- (C) Infectious bursal disease
- (D) Avian influenza

667. The non-invasive confirmative diagnosis of diaphragmatic hernia in buffalo is

- a. Auscultation
- b. Contrast radiography**
- c. Rumenotomy
- d. Plain radiography

668. Liptek test is performed for the diagnosis of

- a. LDA**
- b. Vagal indigestion
- c. Ruminal acidosis
- d. Ruminal tympany

669. Metallic foreign bodies are mostly recovered from

- a. Esophagus
- b. Reticulum**
- c. Rumen
- d. Abomasum

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670. The basic cause of vagal indigestion in cattle is

- a. Trauma
- b. Inflammatory conditions**
- c. Ruminal impaction
- d. Liver dysfunction

671. Distal intestinal obstruction in bullock is diagnosed by

- a. Clinical signs
- b. Hematology
- c. Per rectal examination**
- d. History

672. Common site for obstructive uroliths in bullock is

- a. Prescrotal
- b. Neck of bladder
- c. Pelvic urethra
- d. Post scrotal**

673. 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

674. Umbilical hernia is most commonly seen in

- a. Cattle**
- b. Dog

c. Pig

d. Horse

675. During surgery arterial bleeding is controlled by

a. Haemostat

b. Thumb forceps

c. Allie's tissue forceps

d. Rat tooth forceps

676. The best technique for making instruments germ free is

a. Direct flame

b. Boiling water

c. Chemical

d. Autoclave

677. Sweeney is characterized by atrophy of

a. All muscles

b. Gastrocnemius muscle

c. Scapular muscle

d. None of above

678. Laminitis means that

a. Animal walks lame

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b. Inflammation of joints

c. Inflammation of laminae

d. None of above

679. Treatment of upward fixation of patella

a. Planter tenotomy

b. Medial patellar desmotomy

- c. Middle patellar desmotomy
- d. Cunion tenotomy

680. Inflammation of stifle joint is known as

- a. Laminitis
- b. Omarthritis
- c. Gonitis**
- d. Joint mice

681. Oozing of inflammatory exudates at coronary band in horse hoof is known as

- a. Arthritis
- b. Side bones
- c. Quittor**
- d. Curb

682. Which blood vessel does NOT bring deoxygenated blood directly to the heart?

- a. Pulmonary vein**
- b. Coronary Sinus
- c. Inferior Vena cava
- d. Superior Vena Cava

683. If there is a blockage between the AV node and the AV bundle, how will this affect the appearance of the EKG?

- a. PR interval would be smaller
- b. QRS interval would be shorter
- c. There would be more P waves than QRS complexes**
- d. There would be more QRS complexes than P waves

684. A valve damaged by rheumatic fever fails to open completely. This is known as:

- a. **Stenosis**
- b. Heart Block
- c. Ischemia
- d. MI

685. According to the Frank-Starling Law of the heart, CO is directly related to:

- a. Ventricular muscle mass
- b. Heart Rate
- c. **Amount of blood returning to the heart**
- d. ESV

686. The T Wave on an EKG represents:

- a. Ventricular Depolarization
- b. **Ventricular Repolarization**
- c. Atrial Depolarization
- d. Atrial Repolarization

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e. Ventricular Systole

687. Cardiac output is equal to:

- a. **HR x SV**
- b. HR/SV
- c. EDV - ESV
- d. (EDV-SV) x HR

688. Which of the following represents the outermost layer of the heart?

- a. **Epicardium**
- b. Parietal pericardium

- c. Myocardium
- d. Subendocardium

689. Which of the following cell types is responsible for skeletal muscle regeneration?

- a. Myoepithelial cell
- b. Myofibril
- c. Satellite cell**
- d. Myofibroblast

690. How many T-tubules lie within a single skeletal muscle sarcomere?

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

691. The connective tissue layer that bundles skeletal muscle fibers into fascicles is the:

- a. Perichondrium
- b. Perineurium
- c. Perimysium**
- d. Epimysium

692. An overlap of actin and myosin filaments occurs in the:

- a. A Band**
- b. I Band
- c. Z Line
- d. H Band

693. Which of the following does not describe skeletal muscle fibers?

- a. Striated
- b. Typically voluntary
- c. Multinucleate
- d. Branched**

694. Which of the following cells is responsible for myelin formation in the peripheral nervous system?

- a. Astrocyte
- b. Oligodendrocyte
- c. Schwann cell**
- d. Microglial cell

695. The peripheral nervous system includes the:

- a. Somatic nervous system**

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- b. Brain
- c. Spinal cord
- d. Nuclei

696. A neuron with many short dendrites and a single long axon is a:

- a. Multipolar neuron**
- b. Bipolar neuron
- c. Unipolar neuron
- d. None of the above

697. Graded Dose- Response curve has

- a) Shape of hyperbola on simple graph paper and 'S' shape on semi- log paper**
- b) Shape of 'S' on both simple and semi-log graph paper

c) Shape of 'S' on simple graph paper and shape of hyperbola on semi log paper.

d) Shape of hyperbola on both simple and semi log graph paper.

698. Which of the following inhibits uptake of acetylcholine into vesicles

a) **Vesamicol**

b) Cobra toxin

c) Bungaro toxin

d) Botulinum toxin

699 Which of following is G-protein coupled receptors?

a) Muscarinic

b) Nicotinic

c) Alpha adrenergic receptors

d) **a and b**

700. Which of following is used in the treatment of *myasthenia gravis*

a) Dopamine

b) **Neostigmine**

c) Atropine

d) Benzodiazepam

701. Which of following is used for relief of heaves in horse?

a) Oxytocin

b) **Atropine**

c) Methanol

d) Frusemide

702. Which of following drug increases blood pressure, heart rate and force of contractions.

a) Epinephrine

b) Atropine

c) Laetolol

d) Pindalol

703. Which of followings is a not a saline diuretics.

a) Magnesium sulphate

b) Mannitol

c) Sorbitol

d) Acetazolemide

704. What is the site of action of carbonic anhydrase inhibitors?

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a) Throughout the length of the tubule

b) Loop of Henle

c) PCT

d) DCT

705. In which of the following animals emetics are not used?

a) Rats

b) Cattle

c) Horse

d) All of the above

706. Furosamide causes all except one

a) Metabolic alkalosis

b) Hypocalcaemia

c) Hypokalemia

d) Oligouria

707) Generally, which of the following is in the correct order as dosage is increased?

a) $ED_{50} < LD_{50} < TD_{50}$

b) $ED_{50} < TD_{50} < LD_{50}$

c) $LD_{50} < TD_{50} < ED_{50}$

d) $LD_{50} < ED_{50} < TD_{50}$

e) $TD_{50} < LD_{50} < ED_{50}$

708) Which of the following is considered the therapeutic index (or ratio)?

a) $T.I. = TD_{50} / ED_{50}$

b) $T.I. = LD_{50} / ED_{50}$

c) $T.I. = ED_{50} / TD_{50}$

d) $T.I. = ED_{50} / LD_{50}$

e) A & B

709) Which of the following is considered the brand name?

a) Paracetamol

b) Crocin

c) β -blocker

c) "off label" use

d) Antipyretics

710) Which of the following is NOT a protein target for drug binding?

a) Site of action (transport)

b) Enzymes

c) Carrier molecules

d) Ion channels

711. The general steps in the viral multiplication cycle are:

- a. Adsorption, penetration, replication, maturation and release.**
- b. Endocytosis, penetration, replication, assembly and lysis.
- c. Adsorption, uncoating, replication, assembly and budding.
- d. Endocytosis, penetration, replication, maturation and exocytosis.

712. In dog canine adenovirus infection produces

- a. Pink eye**

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- b. Blue eye
- c. Pearly eye
- d. None

713. Choose the laboratory animal most suitable for typing FMD virus

- a. Guinea pig
- b. Hamster
- c. Weaned mice**
- d. Rat

714. Biological vector of Bluetongue virus is

- a. Aedes
- b. Culicoides**
- c. Anopheles

d. House fly

715. Double stranded segmented RNA with 10-12 segments is the features of family

a. Reoviridae

b. Retroviridae

c. Orthomyxoviridae

d. Paramyxoviridae

716. First anti rabies vaccine was developed by

a. Edward Jenner

b. Louis Pasteur

c. Robert Koch

d. Robert Hook

717. Separation of RBCs from virus is called

a. Elution

b. HA

c. HI

d. Eclipse

718. The viral agent produces diphagic fever, respiratory distress, nervous symptoms and hard pad disease in dog is

disease in dog is

a. Canine distemper virus.

b. ICH virus

c. Rabies Virus

d. IBH virus

719. Virus having RNA dependent DNA polymerase

a. Retrovirus

- b. Reovirus
- c. Rabies virus
- d. Rubella virus

720. Chicken pox in man is caused by

- a. Pox virus
- b. Herpes virus**
- c. Adeno virus
- d. Parvo virus

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721. Swine Influenza virus associated with current pandemic in humans is

- a. H1N1**
- b. H2N2
- c. H3N2
- d. H5N1

722. Chief source of leptospira is

- a. Blood
- b. Urine**
- c. Milk
- d. Faeces

723. Growth of brucella organisms is favored due to

- a. Erythritol**
- b. Sorbitol
- c. Glucose
- d. Protein

724. *E.coli*

- a. Grows at 15-400 C.

- b. Lactose fermenter
- c. Motile
- d. All of these**

725. Spore forming bacteria

- a. Bacillus
- b. Clostridium
- c. Both a and b**
- d. None

726. *Isoschizomers* are Restriction enzymes which:

- a. Recognize and cut the same sequence**
- b. Recognize the same sequence but cut site vary
- c. Both
- d. None

727. *Neoschizomers* are Restriction enzymes which:

- a. Recognize and cut the same sequence
- b. Recognize the same sequence but cut site vary**
- c. Both
- d. None

728. The enzymes used for joining two DNA molecule is:

- a. DNA gyrase
- b. DNA ligase**
- c. Topoisomerase
- d. Helicase

729. Which of the following has the highest density:

- a. Relaxed genomic DNA
- b. Supercoiled DNA
- c. Plasmid

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d. RNA

730. Homo polymer tail can be added by using enzyme:

- a. Ligase
- b. Phosphate kinase
- c. Terminal deoxytransferase**
- d. None

731. The plasmid which is maintained in the host cell in multiple copies are called:

- a. Relaxed
- b. Stringent
- c. Conjugative
- d. None

732. The plasmid which is maintained in the host cell in limited number of copies are called:

- a. Relaxed
- b. Stringent
- c. Conjugative
- d. None

733. RNAs that catalyze biological reactions, such as self-splicing introns, are known as:

- a. Enzyme

- b. Ribozyme
- c. Sliceosome
- d. None

734. The 2 μ m plasmid is found in:

- a. *Escherichia coli*
- b. Pneumococcus
- c. *Bacillus anthracis*
- d. *Sacchromyces cerevisiae*

735. Which of the following statement is true for life cycle of Lysogenic phages:

- a. They immediately induce lysis of host cells for release of new virions
- b. Phage DNA is integrated with the host DNA and retained for several generations
- c. Both the above depending upon the environmental condition
- d. None of the above

736. Genes cloned with M 13 based vector can be obtained in the form of:

- a. Single stranded DNA
- b. Double stranded DNA
- c. Single stranded RNA
- d. None of the above

737. At 600 nm, one unit optical density (OD) of *E. coli* culture corresponds roughly to:

- a. 1×10^6 cells/ml
- b. 1×10^7 cells/ml
- c. 1×10^8 cells/ml

d. 1×10^9 cells/ml

738. EDTA present in lysis solution has following functions:

- a. Chelates Mg^{++} ions and thus inhibits the activity of enzyme DNase
- b. Removes Mg^{++} ions that are essential for preserving the overall structure of cell envelope

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- c. Both of the above
- d. None of the above

739. Which of the following match is incorrect:

- a. SDS: Cell Lysis
- b. EDTA: Chelating Mg^{++} ions
- c. Proteinase K: Degradation of Protein
- d. Isoamyl alcohol: precipitation of DNA

740. CTAB used in isolation of DNA forms complexes with:

- a. DNA
- b. Proteins
- c. Carbohydrates
- d. None of The above

741. Guanidinium thiocyanate is useful in DNA isolation because:

- a. It forms complexes with DNA molecule
- b. It denatures and dissolves all biochemical substances other than nucleic acid
- c. In its presence DNA binds tightly to silica particles

d. Both b & c

742. Which one of the following type of placenta is found in goat?

- a. Zonary
- b. Cotyledonary
- c. Diffuse
- d. Discoidal

743. The lymphatics are absent in

- a. Intestine
- b. Uterus
- c. Brain
- d. Udder

744. The pancreatic acinus is characterized by presence of

- a. Hassal's corpuscle
- b. Centro-acinar cells
- c. central artery
- d. central vein

745. The eccentric placed central artery is found in

- a. Hepatic lobule
- b. Osteon
- c. Spinal cord
- d. Spleen

746. The Purkinje cells are found in

- a. Heart
- b. Cerebrum
- c. Cerebellum

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d. Spinal cord

747 The tendon cell is

a. Fibroblast

b. Myoblast

c. Osteoblast

d. Chondroblast

748 Which one of the following placenta found in mare?

a. Cotyledonary

b. Diffuse

c. Zonary

d. Discoidal

749 Which of the following nerve is the largest cranial nerve?

a. Trigeminal

b. Vagus

c. Sciatic

d. None of the above

750 Which one of the following contains cerebrospinal fluid?

a. Epidural space

b. Subdural space

c. Subarachnoid space

d. None of above

751 Which one of the following ligament is great importance for treatment of upward fixation of patella in the bullock?

- a. Medial patellar ligament
- b. Middle patellar ligament
- c. Lateral patellar ligament
- d. Cruciate ligament

752 Which one of the following species presents single occipital condyle in skull?

- a. cattle
- b. Horse
- c. Dog
- d. Poultry

753 Which one of the following animal vomits only through nostril because of its very long and well

developed soft palate?

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

754 Animal which walks on the hoof is called as?

- a. Plantigrade
- b. Unguligrade
- c. Digitigrade

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d. None of above

755 Which type of placenta present in cow?

- a. Syndesmochorial
- b. Epi theleochorial
- c. Endotheliochorial

d. Haemochorial

756 Which of the following animal presents ovulation fossa on its ovary?

- a. Cow
- b. Mare
- c. Bitch
- d. Doe

757 Which of the following structure produces voice in the fowl?

- a. Larynx
- b. Pharynx
- c. Syrinx
- d. None of the above

758 Which is the space present between vertebral canal and spinal duramater?

- a. Subarachoid space
- b. Subdural space
- c. Epidural space
- d. Dural space

759 Which one of the following vein is called as milk vein in cow?

- a. External jugular vein
- b. Subcutaneous abdominal vein
- c. Umbilical vein
- d. None of above

760 All the spinal nerves are:

- a. Mixed type
- b. Sensory type

- c. Motor type
- d. None of the above

761 Which one of the following foetal membrane encloses embryo in fluid sac?

- a. Chorion
- b. Amnion
- c. Yolk sac
- d. Allantois

762 Down syndrome is an example of

- (a) Monosomy
- (b) Trisomy
- (c) Triploidy

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- (d) Polyploidy

763 Outward expression of a trait is called

- (a) Genotype
- (b) Phenotype
- (c) Karyotype
- (d) all of these

764. Colour blindness in human is

- (a) Sex limited trait
- (b) Sex linked trait
- (c) Sex influenced trait
- (d) None of above

765 What should be the performance of progeny above the herd average in order to declare the bull as

a proven bull?

(a) 20 %

(b) 5 %

(c) 10 %

(d) 15 %

766 The nullisomy is an example of

(a) Anuploidy

(b) Euploidy

(c) Both

(d) None

767 The structural change in a chromosome in which a segment is oriented in a reverse order is called as

(a) Tranlocation

(b) Duplication

(c) Deletion

(d) Inversion

768 The regression of offspring on mid-parent value estimates

(a) $. h^2$

(b) $. h^2$

(c) h^2

(d) None of these

769 The criss cross pattern of inheritance is seen in

(a) Sex limited trait

(b) Sex linked trait

(c) Sex influence trait

(d) None of above

770 The sudden heritable changes in genetic material is called as

- (a) Duplication
- (b) Mutation
- (c) Deletion

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(d) None of these

771 Mutation resulting from replacement of base pair of purine with purine or pyrimidine with pyrimidine is called as

- (a) Transition
- (b) Transversion
- (c) Translocation
- (d) None of these

772 The Coiling Pattern of Shell in Snail is an example of

- (a) Extra nuclear inheritance
- (b) Maternal inheritance
- (c) Cytoplasmic inheritance
- (d) all of above

773 The sex index (X/A) value of 0.5 in *Drosophila* indicates

- (a) Normal male
- (b) Normal female
- (c) Super male
- (d) Super female

774 Genotype of purebred Pea combed birds is

- (a) $RrPp$

(b) RRpp

(c) rrPP

(d) rrpp

775 The phenotypic ratio of recessive epistasis is

(a) 9:3:4

(b) 9:7

(c) 12:3:1

(d) 15:1

776 The medium sized milch breed of buffalo which requires less maintenance is

(a) Murrah

(b) Jafarabadi

(c) Surti

(d) None

777 Central Institute for research on goat is located at

(a) Karnal

(b) Izzatnagar

(c) Makhdoom

(d) Hissar

778 Booroola gene in Garole sheep refers to

(a) Fecundity

(b) Wool production

(c) Body weight

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(d) Milk production.

779 The choice of exotic breed for improving

milk production in cattle in hilly areas is

- (a) HF
- (b) Jersey
- (c) both
- (d) none

780 Red Kandhari cattle belongs to

- (a) U.P.
- (b) M.P.
- (c) A.P.
- (d) Maharastra

781 The exotic cattle breed of choice for improving milk production is

- (a) HF
- (b) Jersey
- (c) Brown Swiss
- (d) Guernsey

782 Vibriosis in a herd can best be diagnosed by

- a) Serum agglutination test
- b) Vaginal mucus agglutination test
- c) Milk ring test
- d) Rose Bengal plate test

783 Induction of estrus by premature regression of the corpus luteum can be done by using

- a) PRID
- b) GnRH
- c) PGF2 α
- d) HCG

784 Under which of the following conditions animal is acyclic

- a) Delayed ovulation
- b) Silent heat
- c) Anovulation
- d) None of the above

785 Time of ovulation in a cow is

- a) 12-24 hrs before the end of estrum
- b) 30-40 hrs after the end of estrum
- c) About the last day of estrum
- d) 10-15 hrs after the end of estrum

786 Flehman's reaction is not observed in

- a) Bull
- b) Boar
- c) Stallion
- d) Ram

92

787 The condition in which fetal bones crepitate within the uterus on rectal examination

- a) Mummification
- b) Hydroallantois
- c) Maceration
- d) None of the above

788 The true bacterial venereal disease is

- a.) Brucellosis
- b.) Campylobacteriosis
- c.) Genital tuberculosis
- d.) Leptospirosis

789 Endometrial cups secrete PMSG hormone during

- a.) 20-60 days
- b.) 100-180 days
- c.) 40-120 days
- d.) 180-250 days

790 In bitch the abdominal palpation can be best performed for early pregnancy diagnosis during

- a.) 15-20 days
- b.) 28-32 days
- c.) 45-50 days
- d.) 55-60 days

791 Which of the following vulval suture technique has the least disadvantages for the retention of

prepartum cervicovaginal prolapse?

- a.) Caslicks operation
- b.) Matress suture
- c.) Quill suture
- d.) Buhner`s suture

792 Cuboni test is done to detect the presence of

- a.) Progesterone
- b.) PMSG
- c.) Estrogen
- d.) None of the above

793 Defective fetal deglutition is thought to be one of the causes of

- a.) Hydroallantois
- b.) Hydroamnios
- c.) Hydrocephalus
- d.) Fetal ascitis

794 "Buller cow" is representing the

- a.) Follicular cyst
- b.) Luteal cyst
- c.) Cystic corpora lutea
- d.) Par ovarian cyst

795 Yellowish or whitish, thick, opaque uterine secretion nourishing the ovum and embryo is called

- a.) Lochia
- b.) 93
- b.) Yolk sac
- c.) Uterine milk
- d.) Oviductal fluid

796 Length of diestrus period of estrus cycle in bovine is

- a) 10 days
- b) 13 days
- c) 18 days
- d) 15 days

797 Period of embryo in cattle is

- a) 13- 45 days
- b) 18-50 days
- c) 10-12 days
- d) 45-280 days

798 Fremitus can be best felt earliest during pregnancy in cattle

- a) 30-40 days
- b) 40-60 days
- c) 150-170 days
- d) 90-120 days

799 Causative organism for contagious equine metritis

- a) *Campylobacter fetus*
- b) *Trypanosoma equiperdum*
- c) Herpes virus
- d) *Teylorella equigenitalis*

800 Abortion storm is a characteristic sign of

- a) Vibriosis
- b) Trychomoniasis
- c) Brucellosis
- d) Leptospirosis

801 The location of seminal vesicles in the bovine is

- a) On the floor of pelvis
- b) Caudal to the bladder, around the neck of bladder
- c) On the either side of the pelvis urethra near ischiatic arch
- d) None of the above

802 Head office of Directorate of Marketing and inspection is located at

- (A) Delhi

(B) Ahmedabad

(C) Faridabad

(D) Jaipur

803 CACP headquarter is located at

(A) Jaipur

(B) Pune

94

(C) Kolkata

(D) Delhi

804. It is the sheep breed with high fecundity trait

a. Nellore

b. Garole

c. Black Bengal

d. Nail

805. Ringing is the practice followed by sheep owner as

a. Tied bell on neck

b. Pass through ring of grasses

c. Clipping of hair around neck

d. Clipping of hair around penis

806. Milling is the process of wool related to

a. Removal of grease and dirt

b. Raises individual fibres on surface

c. Marking at brisket with colour

d. Process of removal of objectionable part

807. Low burr content (LB) is graded in wool at burr content level

- a. Below 2 %
- b. Below 3 %
- c. 3 to 6 %
- d. More than 6 %

808. Vautha fair is famous for trading of

- a. Horse
- b. Cow
- c. Camel
- d. Donkey

809. It is the location where disowned and orphan animals are kept

- a. Animal pound
- b. Gaushala
- c. Panjarapole
- d. None

810. India ranks total milk production in the world.

- a. Third
- b. Second
- c. Fifth
- d. First

811. Gujarat has total breeds of buffaloes.

- a. Two
- b. Four

95

- c. Three
- d. Six

812. First ring on a horn at the age in cattle.

- a. 2 years
- b. 4 years
- c. 3years
- d. 5years

813. Principle object of running dairy farm.

- a. Meat production
- b. Milk production
- c. Sale of heifers
- d. Fodder

814. Sahiwal cow is breed pertaining to the group.

- a. Milch
- b. Dual
- c. Draught
- d. None

815. Calf starter is a feed for.

- a. Calf
- b. Heifer
- c. Cow
- d. Buffalo

816. Nose ring should be applied in bull at the age.

- a. 1.5 years
- b. 2 years
- c. 2.5 years
- d. 3 years

817. Hormone responsible for letdown of milk.

- a. Oxytocin

- b. Prolactine
- c. Lactate
- d. Hyluronidase

818. Dehorning is done in the calf at the age.

- a. 4-10 days
- b. 10-20 days
- c. 3 months
- d. 6 months

819. Common chemical used for dehorning.

- a. Sodium bromide
- b. Potassium iodide

96

- c. Caustic potash
- d. HCL

820. It is not a sexual behavior of bull.

- a. chin resting
- b. libido
- c. courtship
- d. reactivity

821. Banas dairy is located at.

- a. Palanpur
- b. Deesa
- c. Bharuch
- d. Mehsanas

822. Khillar is the breed found at.

- a. Gujarat
- b. Andhrapradesh
- c. Maharashtra

d. Karnataka

823. Calf starter is a feed

- a. liquid feed for calf
- b. liquid feed for heifer
- c. solid feed for calf
- d. solid feed for heifer

824) Calcium requirement in layer poultry per day is about

- a. 0.5 %
- b. 1.5 %
- c. 3.5 %
- d. 10 %

825) Incubation period of chicken egg

- a. 19 days
- b. 23 days
- c. 21 days
- d. 18 days

826) Nutritional roup in poultry is due to deficiency of

- a. Vit A
- b. Vit B6
- c. Vit K
- d. Vit E

827) which of the fowl has a single medium wattle

97

- a. red jungle fowl
- b. ceylon jungle fowl

- c. grey jungle fowl
- d. javan jungle fowl

828) The best breed for using as male line in broiler production is

- a. White rock
- b. Cornish
- c. New Hampshire
- d. Australorp

829) White leghorn are white because

- a. No colour gene
- b. A dominant gene which inhibits color
- c. Recessive white gene
- d. They have silver gene

830) The wildis the ancestor of all domestic duck breeds

- a. Mallard
- b. Campbell
- c. Red fowl
- d. Both a & b

831) The black and white barring in barred Plymouth rock is due tobarring gene

- a. Sex linked gene
- b. Sex limited gene
- c. Sex influence gene
- d. Dominant gene

832) The wildis the ancestor of all domestic duck breeds

- e. Mallard

- f. Campbell
- g. Red fowl
- h. Both a & b

833) In a sex-linked cross involving barring, the female parent is a

- a. Barred Plymouth Rock
- b. Non Barred Plymouth Rock
- c. Both
- d. None of above

834) In a sex-linked cross involving silver and gold, the silver gene carryingparent is used

- a. Male
- b. Female

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- c. Both
- d. None of above

835) In a sex-linked cross involving silver and gold, the gold gene carryingparent is used

- a. Male
- b. Female

- c. Both
- d. None of above

836) In a sex-linked cross involving feathering gene, a late featheringparent is used

- a. Male
- b. Female

- c. Both

e. None of above

837) Which one is sex linked

a. dwarfism

b. nakedness

c. Albinism

d. rapid feathering

838) Egg shell treatment is done to reduce the rate ofloss

a. Oxygen loss

b. Carbon dioxide loss

c. Both a and b

d. Energy loss

839) Shank length and width is a good indicator of

a. Egg production

b. Meat production

c. Skeleton size

d. Health of birds

840) Shank length and width is a good indicator of

a. Egg production

b. Meat production

c. Skeleton size

d. Health of birds

841) Poultry need one more essential aminoacidthan cattle

a. Lysine

b. Methionin

- c. Glysine
- d. Cystene

842) Hens egg contains about.....grams of protein

- a. 6-7
- b. 12-13
- c. 2-3
- d. 21-22

843) A component of egg white having antibacterial activity

- a. Lysozyme
- b. Avidine

99

- c. Transferine
- d. All of above

844 Host which provides a medium for larval or asexual phase of life cycle of an infectious agent.

- a) Intermediate host
- b) Final host
- c) Obligatory host
- d) None of the above

845 Zoonotic disease are perpetuated in nature by a single vertebrate species.

- a) Cyclozoonosis
- b) Direct zoonosis
- c) metazoonosis
- d) Amphizoonosis

846 These are the bacterial zoonosis.

- a) brucellosis
- b) leptospirosis
- c) listeriosis
- d) all of the above

847 Yellow fever is transmitted by.

- a) Aedes aegypti
- b) Argus
- c) Ixodes
- d) Simulium

848 Epidemic in bird population.

- a) Epizootic
- b) Epidemic
- c) Epornitics
- d) all of the above

849 Zone comprises the ozone layer.

- a) Troposphere
- b) stratosphere
- c) mesosphere
- d) thermosphere

850 Method of carcass disposal are

- a) cremation
- b) burial
- c) flamegium
- d) incineration

851 The term refers to smoke mixed with dust

- a) smog
- b) smust

c)soot

100

d)mist

852 Rotten egg odour in water is due to

a) Hyrogen sulfide

b) Algae

c) Cyanide

d) Ammonia

853. Standard of ventilation

a) cubic space

b)air space

c)floor space

d)all of the above

854 Type of transmission caused by physical contact.

a) direct

b)indirect

c)contect

d)vehicle.

855 Test use for diagnosis of brucellosis in cattle.

a) MRT

b) coagulation test

c)hensa test

d) gmelin test.

856 Yellow fever cause by which virus.

a)flavi virus

b)lyssa virus

- c) hendra virus
- d) picorna virus.

857 Constant presence of a disease or organism in a community a)

- Epidemic
- b) Sporadic
- c) Endemic
- d) Panzootic

858 Diseases transmitted from man to lower vertebrate animals called as

- a) Zoonosis
- b) Anthroozoonosis
- c) Amphixenosis
- d) Sporozoonosis

859 Unit of radiation

- a) Rads
- b) Reds
- c) calori

101

- d) Joule

860 Who is the first chief of VPH in WHO?

- a) Dr Martin Kalpan
- b) Dr Smith
- c) Dr Nayadu
- d) Dr B B Jack

861 Test for residual chlorine

- a) Chlorine
- b) Fluorine

c) organoleptic

d) orthitolidine

862 The term referred to mixture of smoke and fog

a) smog

b) must

c) sute

d) mist

863 ozogase present in ozonlayer of stratosphere

a) 0.5 to 1 mg/l

b) 0.2 to 0.3 mg/l

c) 4 to 5 mg/l

d) 2 to 3 mg/l

864 Tick paralysis is mainly caused by ticks belonging to

a) *Hyalomma*

b) *Ixodes spp.*

c) *Boophilus spp.*

d) *Amblyomma spp.*

865 Accidental myiasis causing fly

a) *Musca spp.*

b) *Chrysomia spp.*

c) *Calliphora spp.*

d) *Sarcophaga spp.*

866 'Flea collars' of dogs and cats are usually impregnted with

a) BHC

- b) DDT
- c) Malathion
- d) Dichlorovas

867 The condition 'butchers jelly' is caused by the larvae of

- a) *Oestrus ovis*
- b) *Gastrophilus intestinalis*
- c) *Hypoderma lineatum*

102

d) *Callitroga hominivorax*

868 The two pairs of antennae are present in arthropods belonging to the class

- a) Arachnida
- b) Crustacea
- c) Insecta
- d) Myriapoda

869 Formation of hairballs in the stomach of calves may occur due to

- a) Fly infestation
- b) Lice infestation
- c) By both of the above
- d) None of the above

870 Which of the following is not a larviparous fly

- a) *Oestrus ovis*
- b) *Sarcophaga dux*
- c) *Pseudolynchia canariensis*
- d) *Gastrophilus intestinalis*

871 The following is known as wing louse of poultry

- a) *Lipeurus caponis*
- b) *Goniodes gigas*
- c) *Menopon gallinae*
- d) *Menacanthus stramineus*

872 The body of an arachnid is divided into two parts the anterior gnathosoma and posterior

- a) Podosoma
- b) Idiosoma
- c) Opisthosoma
- d) Prosoma

873 A key role in the transmission of arthropod borne diseases is played by the

- a) Circulatory system
- b) Excretory system
- c) Respiratory system
- d) Digestive system

874 Hexagonal discal cell is present in the wings of

- a) *Tabanus spp.*
- b) *Stomoxys spp.*
- c) *Phlebotomus spp.*
- d) All the above

875 wool-staining in sheep is caused by

- a) *Oestrus ovis*
- b) *Damalinia ovis*
- c) *Melophagas ovinus*

d) None of the above

103

876 Brown-dog tick is

a) *Rhipicephalus appendiculatus*

b) *Rhipicephalus sanguineus*

c) *Haemaphysalis leachi*

d) None of the above

877 'Gavac' vaccine is used against

a) *Hyalomma anatolicum*

b) *Dermacentor andersoni*

c) *Haemaphysalis leachi*

d) *Boophilus microplus*

878 'Sweet itch' in horses is caused by

a) *Simulium indicum*

b) *Phlebotomus sergenti*

c) *Culicoides robertsi*

d) *Climex lecturalius*

879 How are hosts affected directly by arthropods?

a) Infestation

b) Bites

c) Anaphylactic shock

d) All of the above

880 The term 'entomophobia' means

a) A fear of insects

b) The science of insect classification

c) The study of insects

d) The study of insect behaviour

881 Which of the insects listed below could cause myiasis?

- a) Dragon fly
- b) Flea
- c) Screwworm fly
- d) Mite

882 In insects, the body part which acts as a protective structure and which provides for the attachment

of muscles is known as the

- a) Endoskeleton
- b) Sclerites
- c) Abdomon
- d) Exoskeleton

883 Insects which possess sponging mouth parts and do not bite are

104

- a) House flies
- b) Fleas
- c) Mosquitoes
- d) Deer flies

884 Which of the following is not correctly matched-?

- (A) Zn deficiency-Pig
- (B) Epidemic tremor-Virus
- (C) Siderosis-silica dust
- (D) Alkali disease-Se

885 Pachymeningitis is inflammation of-

- (A) Piamater
- (B) Brain
- (C) Duramater
- (D) Spinal cord

886 Liquifactive necrosis is most commonly seen in-

- (A) Kidney
- (B) Liver
- (C) Heart
- (D) Brain

887 Which of the following is correctly matched-?

- (A) Picorna virus-Ranikhet disease
- (B) Lumpy skin disease- Pox virus
- (C) Diamond skin disease-Herpes virus
- (D) Paramyxo virus-FMD

888 Enlargement of Sciatic nerve is seen in-

- (A) Ranikhet disease
- (B) Marek's disease
- (C) Chronic respiratory disease
- (D) Infectious Coryza

889 Apennosis is-

- (A) Intracellular edema of epidermis
- (B) Congenital lack of feathers in fowl
- (C) Absence of pineal gland
- (D) Lack of cell differentiation during embryogenesis

890 Which is incorrect about avian tuberculosis-?

- (A) Calcification absent

(B) Liver and bones are most commonly affected

(C) Lungs are most commonly affected

(D) Intradermal test is performed on wattle.

891 Post mortem of cattle reveals too much emaciated carcass, mucosa of intestine thrown into

corrugated folds, most probable cause will be-

(A) Rinder pest

(B) Johne's disease

105

(C) Tuberculosis

(D) Pasterellosis.

892 Spondylitis is inflammation of-

(A) Prepuce

(B) Vertebrae

(C) Bone

(D) Spermatic cord

893 Which of the following is correct regarding poultry diseases-?

(A) In pullorum disease, green constant diarrhea is seen

(B) Face is swollen and edematous in Haemophilus infection

(C) Bloody mucous expelled from trachea in Infectious Bronchitis

(D) In pullorum disease, nervous signs are seen along with diarrhoea

894 In which outbreak at poultry farm maximum mortality of birds will be expected?

- (A) Ranikhet disease
- (B) Infectious Bronchitis
- (C) Infectious Laryngotracheitis
- (D) Avian Encephalomyelitis

895 Dohle's bodies are toxic granules of-

- (A) Macrophages
- (B) Eosinophils
- (C) Neutrophils
- (D) Lymphocytes

896 East coast fever is caused by-

- (A) *Theileria parva*
- (B) *Theileria annulata*
- (C) *Babesia bovis*
- (D) *Anaplasma centrale*

897 Edema consisting of gelatinous material in neck and brisket region seen in cattle in-

- (A) Black Quarter
- (B) Degenerative disease
- (C) Botulism
- (D) Haemorrhagic Septicemia

898 Which is the main chemical mediator of inflammation-?

- (A) Serotonin
- (B) Bradykinin
- (C) Histamine
- (D) Interleukin-1

899 Big liver disease is also known as-

- (A) IBD
- (B) CRD
- (C) Fowl cholera
- 106
- (D) Fowl typhoid

900 In Angara disease, the pathological finding is-

- (A) Haemopericardium
- (B) Hydropericardium
- (C) Myocarditis
- (D) Pneumopericardium

901 In Left side heart failure, the heart failure cells are seen in-

- (A) Lungs
- (B) Heart
- (C) Kidney
- (D) Spleen

902 Sway back condition is seen due to deficiency of-

- (A) Cu
- (B) Co
- (C) Mn
- (D) Se

903 Most pathogenic species/disease affecting Snakes-

- (A) Pasteurellosis
- (B) Histomoniasis

(C) Salmonellosis

(D) Listeriosis.

904 Abnormal large amount of granulation tissue is known as

a. Proud flesh

b. Callus

c. Adenoma

d. Wound

905 Who introduced the basic principles of surgery

a. W. S. Halsted

b. Joseph Lister

c. W. T. G. Morten

d. Michal Harward

906 Gangrene occurs most commonly in buffaloes at

a. Udder

b. Ear pinna

c. Tail

d. All of above

907 Perineal hernia is common in

a. Mares

b. Castrated dogs

c. Spayed bitches

d. Adult uncastrated dogs

908 Peterson's block is practiced to anaesthetize

107

- a. Teeth
- b. Eye
- c. Flank
- d. Limb

909 If the content of hernia is urinary bladder, then it is termed as

- a. Enterocoele
- b. Epiplocele
- c. Vesicocoele
- d. Hysterocele

910 Radical surgery is done to

- a. Conserve damaged tissue
- b. Remove damaged tissue
- c. Eliminate root cause
- d. Correct malformations

911 Preanesthetic medication is employed to make

- a. Induction of anaesthesia smooth
- b. Recovery complication minimum
- c. Animal more controllable
- d. All of above

912 Reaction of living tissue to injury is known as

- a. Infection
- b. Inflammation
- c. Infestation
- d. Sarcoma

913 Irreducibility of hernia is a due to

- a. Adhesion
- b. Strangulation
- c. Incarceration
- d. All of above

914 One of the following is the congenital defect of eye

- a. Dermoid cyst
- b. Hypopia
- c. Exophthalmos
- d. Corneal ulcer

915 Exposure factor for taking radiograph is

- a. mA
- b. kVp
- c. Second
- d. All of above

916 Amputation of horn can be done under 108

- a. Cornual nerve block
- b. Caudal epidural
- c. Anterior epidural
- d. Retrobulbar nerve block

917 Adhesion of iris to cornea is known as

- a. Anterior synechia
- b. Posterior synechia
- c. Epiphora
- d. Chemosis

918 Surgical operation for providing drainage from middle ear is known as

- a. Zepps' operation
- b. Bulla osteotomy
- c. Hyovertebrotomy
- d. Ventriculectomy

919 FFD for taking diagnostic radiography should be

- a. Minimum
- b. 90 cm
- c. 36 inch
- d. Maximum

920 Reflecting layer is present in

- a. X-ray film
- b. X-ray tube
- c. Intensifying screen
- d. All the above

921 Frequency mainly used for the purpose of diagnostic ultrasound

- a. 1 to 10 MHz
- b. More than 50 MHz
- c. Less than 20000Hz
- d. None of the above

922 Barium sulphate is exclusively used for

- a. Outlining alimentary tract
- b. Outlining urinary tract
- c. Outlining spinal canal
- d. Outlining abdominal cavity

923 Reducing agent used in x-ray developer

- a. Metol

- b. Sodium carbonate
- c. Potassium bromide
- d. Sodium sulphite

924 Cells found in the choroid plexus that secrete cerebrospinal fluid are:

109

- a. Astrocytes
- b. Microglia
- c. Ependymal cells
- d. Oligodendrocytes

925 Action potentials are conducted more rapidly in:

- a. Small diameter axons than large diameter axons
- b. Large diameter axons than small diameter axons
- c. Unmyelinated axons than myelinated axons
- d. Axons that lack a wrapping of Schwann cells

926 Neurotransmitters are stored in vesicles that are located primarily in specialized portions of the:

- a. Soma
- b. Axon
- c. Dendrite
- d. Perikaryon

927 Which of the following organelles is responsible for the appearance of Nissl bodies in the cell

bodies of motor neurons?

- a. Smooth endoplasmic reticulum
- b. Rough endoplasmic reticulum
- c. Golgi apparatus
- d. Mitochondria

928 Which of the following structures is a component of a reflex arc?

- a. Afferent neuron
- b. Efferent neuron
- c. Effector organ
- d. All of the above

929 The testosterone-producing cells of the testes are called:

- a. Sertoli cells
- b. Granulosa cells
- c. Spermatogonia
- d. Leydig cells

930 An oocyte surrounded by one layer of squamous follicle-like cells is most likely a:

- a. Primordial follicle
- b. Primary follicle
- c. Secondary follicle
- d. Graafian follicle

931 Podocytes make up the:

- a. Visceral layer of the nephron
- b. Visceral layer of the glomerulus
- c. Visceral layer of the renal capsule
- d. Visceral layer of the Bowman's Capsule

932 Glucose is:

a. Filtered, reabsorbed, and secreted

110

b. Filtered, and reabsorbed, but not secreted

c. Filtered, and secreted, but not reabsorbed

d. Filtered, and neither secreted nor reabsorbed

933 While the kidneys process about 180L of blood-derived fluids per day, the amount that actually

leaves the body is:

a. 50%, or 90L

b. 100%, or 180L

c. 10%, or 18L

d. 1%, or 1.8L

934 The fluid in the capsular space is similar to plasma except that it does not contain a significant

amount of:

a. Glucose

b. Sodium

c. H⁺

d. Albumin

935 Aldosterone causes:

a. Decreased K⁺ in the urine

b. Increased Na⁺ in the urine

c. Increased urine output

d. Decreased urine output

936 Which of the following is not one of the 3

external coverings of the kidney?

- a. Renal capsule
- b. Adipose capsule
- c. Renal fascia
- d. Renal adventitia

937 The addition of a strong acid to the extracellular fluid would result in the increased formation of:

a. NaHCO_3

-

b. H_2CO_3

c. OH^-

All of the above

938 Severe vomiting can result in:

- a. Septic shock
- b. Anaphylactic shock
- c. Hypovolemic shock
- d. All of the above

939 A patient with a hypothalamic tumor has hypersecretion of ADH. Which of the following BP

readings would be most likely for this patient?

- a. 95/65
- b. 115/80
- c. 120/60
- d. 165/100

940 The space in the middle of the thoracic cavity where the heart resides is the:

a. pericardial cavity

111

b. pericardium

c. pleural cavity

d) mediastinum

941 Blood returning from the lungs enters the heart through the:

a. pulmonary semilunar valve

b. mitral valve

c. right ventricle

d. left atrium

942 The precursor of ketone body is

a. Acetyl CoA

b. Acetoacetic acid

c. Betahydroxybutyric acid

d. Cholesterol

943) For intravenous (IV) dosages, what is the bioavailability assumed to be?

a) 0%

b) 25%

c) 75%

d) 100%

944) Which of the following is NOT a pharmacokinetic process?

a) Alteration of the drug by liver enzymes

b) Drug metabolites are removed in the urine

c) Movement of drug from the gut into general circulation

d) The drug causes dilation of coronary vessels

945) Which of the following has no side effects?

a) Paracetamol

b) Aspirin

c) Meloxicam

d) None of above

946) Most drugs are either ____ acids or ____ bases.

a) Strong; Strong

b) Strong; Weak

c) **Weak; Weak**

d) All of above

947) Which of the following enteral administration routes has the largest first-pass effect?

a) SL (sublingual)

b) Buccal

c) Rectal

d) **Oral**

948) Which of the following would receive drug slowly?

a) Liver

b) Brain

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c) **Fat**

d) Muscle

949) Pharmacokinetics is the effect of the ____ and Pharmacodynamics is the effect of the ____.

- a) Drug on a drug; Body on the drug
- b) Body on the drug; Drug on a drug
- c) Drug on the body; Body on the drug
- d) **Body on the drug; Drug on the body**

950) Which of the following is NOT an action of the body on a drug?

- a) Absorption
- b) Distribution
- c) Metabolism
- d) **Side effects**

951) Which of the following is the amount of a drug absorbed per amount administered?

- a) **Bioavailability**
- b) Bioequivalence
- c) Drug absorption
- d) All of above

952) What type of drugs can cross the bloodbrain barrier (BBB)?

- a) Large and lipid-soluble
- b) Large and lipid-insoluble
- c) **Small and lipid-soluble**
- d) Small and lipid-insoluble

953) Which of the following is NOT a phase II substrate?

- a) Glucuronic acid
- b) Sulfuric acid
- c) Acetic acid

d) **Amino acids**

954) Which of the following reactions is phase II and NOT phase I?

a) Oxidations

b) Reductions

c) **Conjugations**

d) Deaminations

955) What is the goal of the Cytochrome-P450 system?

a) Metabolism of substances

b) Detoxification of substances

c) Decreasing pH of compartments containing substances

d) **A & B**

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956) Weak acids are excreted faster in ____ urine and weak bases are excreted faster in ____ urine.

a) Acidic; Alkaline

b) **Alkaline; Acidic**

c) Acidic; Neutral

d) Alkaline; Neutral

957) Which organ is responsible for metabolism in the "first pass effect"?

a) Brain

b) Heart

c) **Kidney**

d) Liver

958) What determines the degree of movement

of a drug between body compartments?

- a) Partition constant
- b) Degree of ionization
- c) Size
- d) All of the above**

959 Following is responsible for agglutination of RBC in animal body.

- a) Abrin
- b) Ricin**
- c) Renin
- d) Thiamine

960 Bovine Bunker is synonym to

- a) Urea toxicity**
- b) Salt toxicity
- c) Oxalates toxicity
- d) Selenium toxicity

961 Severe and acute pneumonia (Drowning syndrome) indicates probability of poisoning due to

- a) ANTU
- b) OCTP
- c) MB
- d) OP**

962 All of following except one is not used for doping in animal

- a) Furasemide
- b) Phenylbutazone
- c) Steroids**

d) Adrenaline

963. The dry matter requirement of goat is

a. 2 – 3 %

b. 6 – 8 %

c. 4 -5 %

10 %

964. Nagler's reaction with *Cl.perfringens* on egg yolk agar is due to

114

a. Haemolysin

b. Hyaluronidase

c. Lecithinase

d. Leucocidin

965. Cytochemically Rickettsia are

a. Weak gram positive

b. weak gram negative

c. Acid fast

d. None

966. Corynebacteria can be characterized as

a. Non motile, non sporing, aerobic, gram positive bacilli

b. Motile, non sporing, aerobic, Gram positive bacilli

c. Motile, sporing, aerobic, Gram positive bacilli

d. Non motile, sporing, anaerobic, Gram positive bacilli

967. The cells parasitized in host by Rickettsia are

- a. Erythrocytes
- b. Vascular endothelial cells
- c. Neutrophils
- d. Monocytes

968. Dimorphic fungi produces

- a. Mold type growth at 370 C
- b. Yeast type growth at 220 C
- c. Mold type growth at 370 C and Yeast type growth at 220 C.
- d. Yeast type growth at 370 C. and mold type growth at 220 C

969. The organism present in high concentration in pigeon droppings is

- a. *Candida albicans*
- b. *Cryptococcus neoformans*
- c. *Rhinosporidium seeberi*
- d. *Aspergillus flavus*

970. Which of the following is incorrect match.

- a. Diene's stain: Mycoplasma
- b. Fontana stain: Spirochaetes
- c. Machiavello stain: Chlamydia
- d. Acid fast stain: *Staphylococci*

971. Strauss reaction is positive for

- a. *Brucella abortus*
- b. *Pseudomonas mallei*
- c. *Actinobacillus ligneresii*

115

- d. All of above

972. The Weil-Felix test is an agglutination reaction between.

- a. Antibody against Rickettsia and antigen from Pseudomonas
- b. Antibody against Rickettsia and antigen from Staphylococci.
- c. Antibody against Rickettsia and antigen from Brucella.
- d. Antibody against Rickettsia and antigen from Proteus.

973. IMViC pattern of Salmonella is

- a. + + - -
- b. + - + -
- c. - - + +
- d. - + - +

974. Virus having criss cross pattern on its surface is

- a. Contagious pustular dermatitis virus
- b. Fowl pox virus
- c. Adeno virus
- d. Parvo virus

975. Virus having cyclic DNA is

- a. Papova virus
- b. Parvovirus
- c. Pestivirus
- d. Poxvirus

976. Diploid genome is the characteristic of virus family

- a. Retroviridae
- b. Rhabdoviridae
- c. Reoviridae
- d. None of these

977. Bovine viral diarrhea virus belongs to family

- a. Togaviridae
- b. Reoviridae
- c. Herpesviridae
- d. Flaviviridae

978. Which animal is not susceptible to vesicular exanthema virus.

- a. Pig
- b. Horse
- c. Cow
- d. All of above

979. Samples suspected for Pox virus are inoculated in embryonated eggs by the route of

- a. Allantoic cavity
- b. Amniotic cavity
- c. CAM
- d. Yolk sac

980. Bovine ephemeral fever virus belongs to the family

116

- a. Herpesviridae
- b. Rhabdoviridae
- c. Reoviridae
- d. Togaviridae

981. EDS-76 is

- a. Herpes virus
- b. Corona virus
- c. Adenovirus
- d. Poxvirus

982. Paired serum samples means

- a. Serum sample collected at two different stages of a disease from an animal
- b. From two different animals.
- c. Samples divided in two aliquots.
- d. Samples collected from two parents.
- e. Newcastle disease virus infection in human can cause

- a. Generalized infection
- b. Contagious respiratory infection.
- c. Contagious conjunctivitis and mild influenza like symptoms
- d. Encephalitis

983. Which of the following showing buoyant density of DNA, RNA and Protein is correct:

- a. RNA>DNA>Protein
- b. Protein>RNA>DNA
- c. DNA> RNA>Protein
- d. Protein>DNA>RNA

984. Intercalation of ethidium bromide (etBr) in DNA molecule will:

- a. Increase the buoyant density of DNA molecule
- b. Decreases the buoyant density of DNA

molecule

c. Does not affect the buoyant density of DNA molecule

d. None of the above

985. Exonucleases:

a. Removes nucleotides one at a time from the end of DNA molecule

b. Break internal phospho-diester bonds within DNA molecule

c. Removes nucleotides only in 3'-5' direction

d. Removes nucleotides only in 5'-3' direction

986. Endonucleases:

a. Removes nt one at a time from the end of DNA molecule

b. Break internal phospho-diester bonds within DNA molecule

c. Removes nts only in 3'-5' direction

d. Removes nts only in 5'-3' direction

987. The enzyme used to remove phosphate group at the 5' end of DNA molecule is:

a. Alkaline phosphatase

117

b. Polynucleotide kinase

c. Terminal deoxytransferase

d. Topoisomerase

988. The enzyme used to add phosphate group at the free 5' end of DNA molecule is:

a. Alkaline phosphatase

- b. Polynucleotide kinase
- c. Terminal deoxytransferase
- d. Topoisomerase

989. The enzyme that changes the conformation of covalently closed circular DNA by introducing of

removing supercoils is:

- a. Alkaline phosphatase
- b. Polynucleotide kinase
- c. Terminal deoxytransferase
- d. Topoisomerase

990. *Eco* RI produces:

- a. Blunt end
- b. Sticky end
- c. Both
- d. None

991. The specific position on a DNA molecule where DNA replication begins is called:

- a. Replication fork
- b. Origin of replication**
- c. Start Point of replication
- d. None of the above

992. An algorithm used to search homology is:

- a. BLAST**
- b. CLAST
- c. PUBSCAN
- d. HOMOSCAN

993. The fact that not all codons are used equal

frequency in the genes of a particular organism is

called:

- a. Codon preference
- b. Codon bias**
- c. Codon choice
- d. None of the above

994. A technique that can be used to construct a clone contig by identifying overlapping fragments of

cloned DNA:

- a. Gene walking
- b. Chromosome walking**
- c. Clone fingerprinting
- d. None of the above

995. The ability of two different types of plasmid to co-exist in same cell is called:

- a. Competence
- b. Compatibility**

118

- c. Interference
- d. None of the above

996. The non coding sequence within genes that do not translate into protein is:

- a. Intron**
- b. Exon
- c. Transposons
- d. None of the above

997. The coding sequence within genes that translate into protein is:

- a. Intron
- b. Exon**
- c. Transposons
- d. None of the above

998. The process of modification of RNA after transcription in which introns are removed and exons

are joined is called:

- a. Splicing**
- b. Recombination
- c. Translocation
- d. Assortment

999. A relatively short fragments of DNA synthesized on the lagging strand during DNA replication is

called:

- a. Primer
- b. Okazaki fragment**
- c. Klenow fragment
- d. None of the above

1000. Which of the following is not a stop codon:

- a. AUG**
- b. UAA
- c. UGA
- d. UAG

1001. Which of the following is a start codon:

- a. AUG
- b. GUG
- c. Both**
- d. None

1002. Which of the following is incorrect about genetic code:

- a. It is non overlapping
- b. It is redundant
- c. It is ambiguous**
- d. None of the above

119

ANSWER KEY

Sr.

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Answer Sr. No Answer Sr. No Answer

1. a 46 B 91 c 136 b 181 a

2. d 47 B 92 c 137 b 182 c

3. b 48 A 93 b 138 a 183 d

4. d 49 A 94 c 139 b 184 b

5. B 50 C 95 a 140 b 185 d

6. C 51 B 96 a 141 b 186 a
7. d 52 B 97 c 142 a 187 c
120
8. b 53 B 98 a 143 b 188 a
9. a 54 C 99 a 144 b 189 c
10. b 55 C 100 a 145 b 190 a
11. b 56 B 101 c 146 a 191 a
12. a 57 C 102 a 147 a 192 c
13. c 58 D 103 b 148 a 193 b
14. a 59 C 104 b 149 a 194 b
15. a 60 A 105 a 150 a 195 b
16. a 61 D 106 b 151 b 196 d
17. b 62 A 107 a 152 d 197 b
18. c 63 A 108 a 153 c 198 c
19. a 64 C 109 c 154 b 199 a
20. d 65 D 110 b 155 b 200 c
21. c 66 D 111 d 156 b 201 a
22. c 67 A 112 b 157 b 202 c
23. c 68 D 113 b 158 a 203 c
24. c 69 A 114 a 159 c 204 c
25. b 70 A 115 a 160 d 205 c
26. a 71 C 116 a 161 b 206 b
27. c 72 A 117 b 162 c 207 a
28. a 73 D 118 a 163 d 208 b
29. c 74 C 119 c 164 a 209 a
30. d 75 A 120 d 165 b 210 a
31. c 76 C 121 b 166 c 211 a
32. d 77 D 122 b 167 d 212 b

33. b 78 A 123 a 168 a 213 c
121
34. c 79 C 124 b 169 c 214 a
35. d 80 D 125 a 170 b 215 d
36. b 81 B 126 d 171 b 216 d
37. a 82 A 127 a 172 a 217 d
38. a 83 D 128 a 173 c 218 c
39. b 84 A 129 a 174 b 219 a
40. a 85 A 130 b 175 a 220 a
41. d 86 C 131 a 176 c 221 a
42. b 87 C 132 a 177 b 222 c
43. c 88 A 133 a 178 d 223 a
44. a 89 C 134 a 179 c 224 b
45. B 90 A 135 b 180 c 225 B

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226 C 271 B 316 a 361 a 406 B

227 C 272 A 317 c 362 d 407 A

228 B 273 D 318 c 363 a 408 B

229 B 274 A 319 c 364 b 409 A
230 A 275 A 320 a 365 b 410 b
231 A 276 A 321 a 366 d 411 b
232 C 277 b 322 a 367 c 412 a
233 A 278 a 323 c 368 a 413 a
234 B 279 c 324 b 369 b 414 b
235 A 280 b 325 d 370 c 415 a
236 B 281 c 326 b 371 c 416 b
237 C 282 c 327 c 372 d 417 d
238 C 283 b 328 d 373 c 418 b
239 d 284 c 329 a 374 c 419 a
240 D 285 b 330 c 375 d 420 d
241 B 286 d 331 d 376 b 421 d
242 D 287 b 332 d 377 a 422 c
243 D 288 a 333 c 378 c 423 d
244 C 289 b 334 a 379 C 424 b
245 A 290 b 335 d 380 D 425 b
246 D 291 c 336 d 381 C 426 d
247 C 292 a 337 a 382 B 427 b
248 D 293 a 338 d 383 a 428 a
122
249 D 294 a 339 a 384 b 429 d
250 A 295 a 340 b 385 A 430 b
251 A 296 c 341 b 386 A 431 b
252 C 297 b 342 d 387 B 432 a
253 C 298 a 343 c 388 C 433 b
254 C 299 b 344 c 389 B 434 d
255 D 300 a 345 d 390 B 435 b

256 A 301 a 346 b 391 B 436 b
257 B 302 a 347 a 392 C 437 c
258 B 303 c 348 d 393 B 438 a
259 B 304 c 349 b 394 C 439 b
260 D 305 a 350 a 395 D 440 b
261 B 306 b 351 a 396 D 441 c
262 B 307 d 352 c 397 B 442 b
263 C 308 d 353 d 398 C 443 a
264 A 309 a 354 a 399 B 444 c
265 D 310 b 355 a 400 B 445 b
266 B 311 b 356 b 401 B 446 a
267 D 312 a 357 c 402 B 447 a
268 A 313 a 358 d 403 A 448 a
269 A 314 b 359 a 404 B 449 d
270 B 315 a 360 d 405 A 450 D

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451 C 496 d 541 c 586 a 631 b

452 A 497 b 542 a 587 c 632 c

453 B 498 a 543 a 588 a 633 c
454 A 499 b 544 b 589 a 634 c
455 A 500 a 545 a 590 b 635 d
456 A 501 B 546 b 591 b 636 c
457 C 502 C 547 b 592 d 637 a
458 B 503 B 548 b 593 b 638 c
459 C 504 A 549 b 594 c 639 b
460 a 505 D 550 d 595 c 640 b
461 c 506 D 551 b 596 a 641 b
462 d 507 A 552 c 597 a 642 a
463 a 508 A 553 a 598 b 643 c
464 c 509 B 554 a 599 c 644 c
465 d 510 A 555 d 600 d 645 b
466 b 511 b 556 c 601 b 646 b
467 b 512 a 557 c 602 b 647 a
468 a 513 b 558 b 603 c 648 c
469 c 514 c 559 a 604 c 649 b
470 b 515 a 560 b 605 c 650 b
471 b 516 a 561 b 606 b 651 a
472 d 517 a 562 d 607 b 652 a
473 b 518 a 563 b 608 c 653 c
123
474 b 519 c 564 c 609 c 654 b
475 a 520 c 565 b 610 b 655 d
476 c 521 a 566 b 611 c 656 c
477 d 522 d 567 b 612 b 657 b
478 d 523 a 568 c 613 d 658 b
479 a 524 b 569 b 614 b 659 c

480 a 525 c 570 c 615 a 660 d
481 d 526 b 571 c 616 a 661 d
482 d 527 a 572 a 617 b 662 b
483 b 528 b 573 a 618 a 663 b
484 d 529 d 574 c 619 b 664 c
485 a 530 a 575 a 620 d 665 c
486 d 531 b 576 b 621 d 666 a
487 b 532 d 577 b 622 d 667 b
488 d 533 a 578 c 623 c 668 a
489 d 534 c 579 a 624 b 669 b
490 d 535 c 580 c 625 a 670 b
491 a 536 a 581 a 626 c 671 c
492 b 537 a 582 a 627 d 672 d
493 c 538 b 583 b 628 d 673 c
494 a 539 a 584 b 629 d 674 a
495 d 540 c 585 c 630 a 675 A

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676 d 721 a 766 a 811 b 856 a

677 c 722 b 767 d 812 c 857 c
678 c 723 a 768 c 813 b 858 a
679 b 724 d 769 b 814 a 859 b
680 c 725 c 770 b 815 a 860 a
681 c 726 a 771 a 816 b 861 d
682 a 727 b 772 d 817 a 862 a
683 c 728 b 773 a 818 a 863 d
684 a 729 d 774 c 819 d 864 b
685 c 730 c 775 a 820 d 865 a
686 b 731 a 776 c 821 a 866 d
687 a 732 b 777 c 822 d 867 c
688 a 733 b 778 a 823 a 868 b
689 c 734 d 779 b 824 c 869 b
690 b 735 b 780 d 825 c 870 d
691 c 736 a 781 a 826 a 871 a
692 a 737 d 782 b 827 d 872 b
693 d 738 c 783 c 828 b 873 d
694 c 739 d 784 d 829 b 974 a
695 a 740 a 785 d 830 a 875 c
696 a 741 d 786 b 831 a 876 b
697 a 742 b 787 c 832 a 877 d
698 a 743 c 788 b 833 a 878 c
124
699 d 744 b 789 c 834 b 879 d
700 b 745 d 790 b 835 a 880 a
701 b 746 c 791 d 836 b 881 c
702 a 747 a 792 c 837 d 882 d
703 a 748 b 793 b 838 b 883 a

704 c 749 a 794 a 839 c 884 c
705 b 750 c 795 c 840 c 885 c
706 d 751 a 796 b 841 c 886 d
707 b 752 d 797 a 842 a 887 b
708 b 753 b 798 d 843 a 888 b
709 b 754 b 799 d 844 a 889 b
710 d 755 a 800 c 845 b 890 c
711 a 756 b 801 b 846 d 891 b
712 a 757 c 802 c 847 a 892 b
713 c 758 c 803 d 848 c 893 b
714 b 759 b 804 b 849 b 894 c
715 a 760 a 805 d 850 b 895 c
716 b 761 b 806 b 851 b 896 a
717 a 762 b 807 b 852 a 897 d
718 a 763 b 808 d 853 d 898 c
719 a 764 b 809 c 854 c 899 a
720 b 765 a 810 d 855 a 900 B

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901 A 946 C 991 b
902 A 947 D 992 a
903 C 948 C 993 b
904 A 949 D 994 b
905 A 950 D 995 b
906 C 951 A 996 a
907 D 952 C 997 b
908 B 953 D 998 a
909 C 954 C 999 b
910 C 955 D 1000 a
911 D 956 B 1001 c
912 B 957 D 1002 c
913 D 958 D
914 A 959 B
915 D 960 a
916 A 961 A
917 A 962 D
918 B 963 B
919 B 964 C
920 C 965 B
921 C 966 A
922 A 967 B
923 A 968 D
125
924 C 969 B
925 B 970 D
926 B 971 D
927 B 972 D

928 d 973 D
929 D 974 A
930 A 975 A
931 d 976 A
932 b 977 D
933 D 978 B
934 D 979 C
935 D 980 B
936 d 981 C
937 B 982 A
938 C 983 a
939 D 984 b
940 D 985 a
941 D 986 b
942 D 987 a
943 D 988 b
944 D 989 d
945 d 990 b
126

- Bacterial disease in which Pasteur's vaccine used- Anthrax
'Para anthrax' in pigs caused by- Cl. septicum
Foot rot in sheep is caused by – Bacterioides nodosus

Duck Plague is the synonym for –Duck Viral Enteritis

The indistinct margins of a radiograph due to a large focal spot of X-ray beam -penumbra.

The optimum temperature of developing and fixing solutions in radiography is -68F

Avian influenza virus has 8 gene segments

M. leprae can be cultivated in vivo only in- Armadillo

State of unresponsiveness towards an antigen is – Anergy

The cholinergic drug that cannot be hydrolyzed by AchE is -carbachol

The penetrating power of X-ray beam depends on – kvp

Anaesthesia produced by combination of drugs is termed as-Balanced anaesthesia

Antigen-Antibody complexes present in dendrites of Dendritic cells- Iccosomes

BCG is an attenuated form of –

Mycobacterium bovis

Vitamin C is used as an antidote to

–Nitrate—poisoning

Oseltamivir is the drug of choice against- Bird flu in humans

The species of animal in which Ivermectin crosses the BBB- Equines

The only anaesthetic agent known to be carcinogenic- fluoroxene

The drugs contraindicated in parakeets & cats respectively are- procaine & morphine

The species most sensitive to the ill-effects of xylazine – cattle

A pantropic virus that commonly affects Canines- Canine distemper virus

Symplasma stage in submucosa is seen in- Johne's Disease

- Oestrogenic mycotoxin causing reproductive disorders in swine is- Zearalenone
'Blue eye' or Rubarth's Disease is the synonym for- Infectious Canine Hepatitis
Which is the most potent opiate analgesic?
carfentanil
Name a benzodiazepine antagonist-
flumazenil
Ketamine is contraindicated in head injuries as it reduces -Intracranial pressure
The subtype of Avian flu virus causing human casualties around the world- H5N1
Mad cow disease is caused by- Prions
Cold enrichment procedure is done for the isolation of – Listeria
'J' chain is present in immunoglobulins- IgA and IgM

In the body, Chloral hydrate is converted to – trichloroethanol

Name one anaesthetic agent which is steroid in nature- Althesin

Dose of Anthrax vaccine- 1ml s/c

Anaphylatoxins are- C3a and C5a

The specific antidote of Morphine is- Nalorphine

Dunkop (pulmonary) and Dikkop (cardiac) are two forms of – African Horse Sickness

'Wire loop' lesions in the glomerular basement membrane seen in- SLE

The drug used to stabilize mast cells- Cromolyn sodium

Hyaluronidase– enzyme used with local anaesthetics to promote its diffusion and absorption

Milbemycin oxime is obtained from- Streptomyces hygroscopicus

Name a suture material that glows in darkness easy to handle in poor light- Flurofil

Cardinal Signs of Inflammation was propounded by- Cornelius Celsus

FMD virus multiplies in the

—Str.spinosum— layer of epidermis

Father of Immunology is- Edward Jenner

Lamsiekte in cattle and sheep is caused by –

Cl.botulinum type D.

Vaccine strain of B.anthraxis is – Avirulent and Non capsulated

Monsell's suture technique is used in – Enteroanastomosis

Ethylene oxide is a gaseous agent used for sterilization kills microorganisms by-alkylation..

VitC is necessary for hydroxylation of proline & lysine in synthesis of -collagen

'Bomb burst' or 'Umbrella like' colonies are characteristic of – Listeria

Influenza virus is typed based on Matrix and Nucleocapsid antigen

The conversion of DHFA to THFA is blocked by- Trimethoprim

Examples of penicillinase resistant penicillins- Methicillin and Cloxacillin

First immunoglobulin to be synthesized in Neonates- IgM.

'Abortion storms' in sheep is caused by- Campylobacter foetus

Vaccine strain used for prophylaxis of IBD infection-Georgia

Which is the only benzimidazole drug that wont inhibit Fumarate reductase- mebendazole

Name an anthelmintic which was previously used to treat human gout- piperazine

The experimental animal used for FMD research is – Guinea pig

The no: of Capsomers in Adenoviruses is- 252

The source of Vero cell line is – African Green Monkey (Kidney)

Heat resistant ability of sporulated bacterium is due to the compound-Ca dipicolinate

The generation of monoclonal antibodies involves-Salvage pathway

Antibiotic which can also function as an anthelmintic agent is- Hygromycin B

Ivermectin toxicity can be reversed by using – Picrotoxin

Cucurbitin, an active principle in Pumpkin seed is used for the treatment for-Cestodiasis

Name a live vaccine previously used against rabies- Flury's LEP & HEP

- Periarticular lymphoid sheath (PALS) is populated by T lymphocytes are seen in- Spleen

Habel's testing (mouse test) is done for the diagnostic assessment of- Rabies

Most immunogenic viral polypeptide of FMD virus is – VP1

Rabbits show genetic tolerance towards-

Atropine

The diuretic that cannot be given along with aminoglycoside antibiotics- Furosemide

The antibiotic Gentamicin is obtained from- *Micromonosporum purpureum*

Ochratoxin primarily causing renal impairment is produced by- *Aspergillus ochraceus*

Name the smallest animal virus- Porcine circovirus (17-20nm)., FMDV is of 28-30nm size.

Pyometra in bitches is caused by –*E.coli*

Strawberry foot rot is caused by-

Dermatophilus congolensis

Drug of choice for mycoplasmosis- Tylosin

‘Tennis racket’ shaped spores are present in- *Cl. chauvoei*

Psittacosis or Ornithosis in birds is caused by- *Chlamydophila psittaci*

The proton pump inhibitor used to treat

Zollinger-Ellison syndrome-Omeprazole

Rabies virus (bullet shaped) belongs to the genus- *Lyssa virus*

‘Bull Nose’ in pigs is caused by-

Fusobacterium necrophorus

DNA virus that codes for reverse transcriptase enzyme- Hepadna virus

Chronic Respiratory Disease in birds is caused

by – *Mycoplasma gallisepticum*

Immediate precursor of all sex steroids-

Pregnenalone

In avian tuberculosis the lesions are confined to

– GI tract

Name a commonly used AChE reactivator-

Pralidoxime.

Piperonyl butoxide is used as a synergist

along with -Pyrethroids

HVT is the vaccine strain used against-

Marek's Disease

In *B. abortus*, the ratio between LPS antigens A

and M is – 20:1

Kume and Page Scheme is used for the

classification of- *Haemophilus*

'Reverse Genetics' is nowadays used for the

production of vaccine strains of – Avian flu

virus

Drug of choice against Theileriosis is -

Buparvaquone

With H&E staining the calcified tissue appears

-Blue

The toxic level of Aflatoxin in ducklings is-

0.03ppm

Summer Mastitis in cattle is caused by -*C.*

pyogenes

Heart Water disease is caused by- *Cowdria*

ruminantium

EMJH medium is commonly used for the cultivation of -Leptospira

Hoti's test is used for detecting -Str. agalactiae mastitis

Infectious Bulbar Paralysis is the synonym for -Psuedorabies

Sulphonamides are metabolized by acetylation in ruminants and glucuronidation in canines.

Scythe shaped spleen is seen in -Horses

The most important symptom of anthrax in dogs is -Gastroenteritis.

Braxy in sheep is caused by -Cl. septicum.

The microbes that have the ability to survive pasteurization temp is -Listeria and Coxiella

Teichoic acid is present in the cell wall of - Gram + bacteria

Route of inoculation in chicken embryos is intravenous for Blue tongue virus

'Darling disease' is caused by - Histoplasma New Jersey, Indiana and Trinidad are strains of - Vesicular stomatitis virus

Diene staining is used for - Mycoplasma

Aspergillus flavus in SDA produces -Yellowish green colonies

Cork screw motility is shown by - Campylobacter

Turkey coryza which is highly contagious is caused by – Bordetella avium
Castanida and Machiavello staining are employed for detecting- Chlamydia
The antibodies used against the Rh antigen to prevent Erythroblastosis foetalis- Rhogam
The immunoglobulin known as ‘Reagin’- IgE
Macrophages present in Kidney are known as- Mesangial cells
Interleukin that suppresses the immune response is – IL-10
Etiological agent of silage disease is – Listeria.
Smallest living organism of individual existence- Mycoplasma
Bacillus anthracis have medusa head like colonies in -Nutrient agar
Clostridium perfringens type A in animals causes- Gas gangrene
The class of immunoglobulin that first appears in primary immune response- IgM
Polypeptide chain called secretory component is present in- IgA
Docking in dogs can predispose to a condition called- Perineal Hernia
Hoflund’s syndrome is the synonym for- Vagal indigestion
Vitamin K dependent clotting factors are- 2,7,9

and 10.

Limber neck in poultry is caused by-

Clostridium botulinum type C

The amino acid tryptophan act as growth promoter for the microbe- *Erysepelothrix*

The most potent Aflatoxin is- B1

The cytolytic product of CTL cells that forms transmembrane pores in target cells- Perforins

Autoimmune disease in which Ig's are formed against Ach receptors- Myasthenia gravis

World's first veterinary school in – 1762, Lyons, Paris

The dog breed that has genetic predisposition for skin tumor- Boxer

Gavard's muscle is the synonym of -Int.obl. muscle layer of stomach.

Ventral bending (concave) of the spinal column is called- Lordosis

A and M antigens are absent in- *B.canis* & *B.ovis*

Foothill abortion / BEA in cattle is caused by- *Chlamydophila psittaci*

The antibacterial system naturally present in milk is- Lactoperoxidase system

Marsupialization in bitches is done usually to treat- Pyometra

Dose of Ivermectin is – 200 micrograms/Kg

body weight

The breed of cattle which has strong predisposition for Eye Cancer- Hereford

Male dog urinates like bitch in – Cystitis

Knott test is done to detect Dirofilariosis in dogs

- Half life of IgG is – 20-21 days

Benign tumor of gingiva is called – Epulis

The drug used to contract gall bladder (cholecystokinetic)- Ceruletide

The type of paralysis produced by the drug piperazine on worms is – flaccid

Cart wheel shape chromatin is seen – Plasma cells

The most abundant buffer system in plasma- bicarbonate buffer

The smallest animal cell has a diameter of – 2 microns

The Fc fragment of Ig's can be recovered by digestion with the enzyme- Papain

Most common respiratory pathogen in canines – Bordetella bronchiseptica (kennel cough)

Rabbit ileal loop assay is commonly done for the detection of – ET E.coli

Haemo-lymphnodes are commonly seen in – Ruminants

Clonal selection theory of antibody production was proposed by- Burnet

Biphasic fever in dogs is indicative of – Canine distemper

Ramstedt's surgical procedure is performed to correct- Pyloric stenosis

The immediate precursor of thrombocytes are - Megakaryocytes

Rouleaux formation in blood smear is a common finding in – Felines

Substance required for platelet aggregation is – Thromboxane

The interleukin commonly referred as chemokine is – IL-8

Rectal pinch test is done for the diagnosis of – Johne's disease

Surgical cat gut is often sterilized by- Isopropyl alcohol or ethylene oxide

Giant kidney worm of Dogs is – Dioctophyme renale

The sedimentation coefficient of IgG is 7S and IgM is 19S

Principal metabolic pathway in RBC is- Glycolysis

Tyzzler's disease in foals and lab animals is caused by – Bacillus piliformis

Avian spirochetosis is caused by – Borrelia

anserina

Colopexy is used to treat- Recurrent rectal prolapse

Mouse ascites method is used to production of – Monoclonal antibodies

The dog breed having genetic predisposition to cardiac hypertrophy- Grey hound

Suture technique used for uterine stump closure- Parker kerr method

In humans MHC is referred to as HLA complex whereas in mice it is H-2 complex

“Papple” shaped abdomen is diagnostic of – Vagus Indigestion

Tenesmus followed by bloody dysentery in calves is characteristic of – Eimeria zuernii

The coccidial organism commonly found in felines and canines – Isospora (Eimeria absent)

“Slime balls” ie., cercarial aggregation seen in- Dicrocoelium infection.

“Grunt” on applying pressure on xiphoid region in cattle is indicative of- TRP

Salmon poisoning in dogs caused by - Neorickettsia helmintheca

Antibody having least half life is – IgE

Genetically mutant mice lacking NK cells is called- Biege (Athymic mice- ‘Nude’)

Salivary cyst found in sublingual duct is-
Ranula

Membrane bound IgM is a – Monomer
Class II MHC restricted cells are- T helper cells

Lyme disease is caused by – Spirochete,
Borrelia burgdoeferi, (IH- Ixodes)

Antidote for warfarin toxicity is – Vitamin K

The drug that intensifies the toxic effects of
Warfarin is – Phenyl Butazone

The amino acid which is deficient in cats is –
Taurine

Complement activation is predominantly
mediated by – IgM

The compound used as gastric sedative in
dogs is – Chloretone

The receptor for co-stimulating B7 molecules
on APC is- CD28

Enteroplication is the surgical technique to
correct- Intussusception

The antibody that can exist as monomer,
dimer, trimer and tetramer- IgA.

Insulin like growth factor –I is also called as –
Somatomedins

The diuretic with Aldosterone antagonistic
action is – Spironolactone

The drug used to experimentally induce
diabetes in dogs- Alloxan

Allopurinol is the drug of choice for the treatment of – Gout

In passive HA, chemical used to coat antigens in RBC- Tannic acid or chromium chloride.

Infectious RNA molecule of low molecular weight comes under the category- Viroids

Pink eye is caused by *Moraxella bovis* and

Summer pink eye is caused by IBR virus

'Dew drop' colonies and satellite phenomenon is exhibited by- *Haemophilus*

9R is the vaccine strain of – *Salmonella Gallinarum*

Glaucoma, a condition of increased intra ocular pressure is treated using-

Acetazolamide

Canrenone is the metabolite of –
Spironolactone

Kanagawa reaction is shown by – *Vibrio parahaemolyticum*

SMEDI in pigs is caused by – Parvo Virus

"White Spotted" kidney is a sequelae to –
Leptospirosis and *E.coli* infections

Infarcts in kidney of Swine is characteristic of –
Erysipelas

In GI tract, the antigen transport is carried out by specialized cells called- 'M' cells

Infectious protein particles causing 'Scrapie' in

sheep are called- Prions

The penicillin which is effective against pseudomonas infection- Carbenicillin

Burton's line in gums is indicative of – Lead poisoning

The drug that can replace Ivermectin in sensitive dogs- Milbemycin oxime

Jaagsiekte “ Driving Sickness” in sheeps is caused by Retro virus

Jaagsiekte is Pulmonary adenomatosis and Visna-Maedi (Retro) is Progressive pneumonia

Farmer's Lung in cattle is caused by – Micropolyspora faeni

The virus having a unique ‘double capsid’- Reovirus

Viral etiology of neoplasms were first reported by- Ellerman and Bang

The group specific antigen of ALV which is commonly used for COFAL test is -p27

Recombinant DNA technology was first developed by- Cohen and Boyer

Ephemeral fever (3 day sickness) is caused by – Rhabdovirus

“Facial Eczema” in cattle is caused by Pithomyces chartarum (fungus with toxin sporidesmin)

“Gall Sickness” is the synonym for-

Anaplasmosis

Antigenic variation in avian influenza virus is largely due to- Genetic Shift

MAB technique for producing monoclonal Ig's was devised by- Kohler and Milstein

Bence Jones proteins (light chains of Ig) are present in urine in -Multiple myeloma

Rose-Waaler test is used for the detection of - Rheumatoid factor (IgM)

The dose of Heparin used as an anticoagulant is- 10-20 IU/ml

The media used to select the myeloma cells in MAB technique is- HAT medium

The site present in an antibody to which an antigen binds is called- Paratope

The vector for Reoviral Blue tongue in sheeps is- *Culicoides* spp

"Pizzle rot" (Ovine Posthitis) in sheeps is caused by- *Corynebacterium renale*

Gid, Sturdy, or Staggers is caused by-*Coenurus cerebralis* (*T. multiceps*)

The most commonly used serological test ELISA was developed by- Engvall and Perlman

The gene for virulence in ND virus and AI virus are-Fusion gene and HA gene (respectively)

'Tigroid heart' in calves is characteristic of- FMD

Vascularization of Cornea is known as –
Pannus

The lesion in eyes of horses due to leptospiral infection – Periodic Ophthalmia

“Blue eye” is the synonym for- Infectious Canine Hepatitis (adenovirus)

“Hot Spot” (pyotraumatic dermatitis) is caused by- Staphylococcus aureus & S. intermedius.

The interleukin often referred to as B cell growth factor is- IL-6

FMD virus belongs to the genus- Aphthovirus
‘Dropped Sole’ in horses is a condition due to- Chronic Laminitis

The etiological agent of Ephemeral fever in cattle is- Rhabdovirus

Feline pan leucopenia is caused by- Parvo virus

Avian Influenza is caused by Influenza A virus of the family- Orthomyxoviridae

The principal source of Interferon β is – Fibroblasts

SAT-1,2 and 3 are types of FMDV originated from- Africa

The interleukin responsible for class switching of IgM to IgG is – IL-4

The animal species that serves as “ mixing vessel” for Avian and Mammalian flu is – Pig

Disinfectant of choice against Anthrax bacilli-
Gluteraldehyde (2%)

HVT, the vaccine strain used against MDV
(serotype I) belongs to- serotype III

In birds, Avulavirus is the causative agent of –
Newcastle disease

The cell surface marker of memory T cells is-
CD45RO

In ALV infection, the tumor development is
due to activation of oncogene called- c-myc

Disinfectant of choice against FMD virus-
Sodium Carbonate (4%)

Staphylorrhaphy and Uranoplasty are
techniques used to correct- Cleft palate

Negri bodies for diagnosis of rabies can be
detected using- Seller's stain

Malignant tumor of mesenchymal cells is
referred as – Sarcoma

- 1. Pseudo glanders is caused by-----
- 2. Gestation period of lion/tiger is -----
- 3. Eye worm of poultry is -----
- 4. Bubo is the abscess of -----
- 5. The etiology of Crazy chick disease is

6. A pet animal which is an induced ovulator is -----.

7. The amino acid that is essential for the synthesis of haemoglobin.

8. One gram of haemoglobin carry ----- ml of Oxygen.

9. One gram of haemoglobin on degradation will produce ---mg of bilirubin.

10. Micro organisms that survive pasteurisation temperature are-----.

• **KEY**

1. Histoplasma farciminosum

2. 100-105 days

3. Oxyspirura mansoni

4. Lymph node

5. Hypovitaminosis- E

6. Cat

7. Glycine

8. 1.34 ml

9. 35 mg

10. Listeria and Coxiella

QUESTIONS

1. Summer mastitis is caused by -----.

2. Both intranuclear and intracytoplasmic inclusion bodies are present in the infections caused by ----.

3. Normal intraocular pressure is -----.

4. Enzyme responsible for the production of Ketone bodies is -----
5. Plasma protein precipitated last in salting out is -----
6. The ratio of Calcium and Magnesium in blood is -----
7. Quellung reaction is shown by -----
8. Drug of choice for Theileriosis is -----
9. Kanagawa reaction is shown by -----
10. The cerebrospinal fluid pressure is -----

• **KEY**

1. *Corynebacterium pyogenes*
2. Morbilli virus (paramyxovirinae)
3. 20 mm of Hg
4. HMGCOA lyase
5. Albumin
6. 6:1
7. *Streptococcus pneumoniae*
8. Buparvaquone (BUTALEX)
9. *Vibrio parahaemolyticum*
10. 8-12 mm of Hg

QUESTIONS

1. Antidote of choice in copper poisoning is -----
2. Adrenaline at the rate of 1:1000 is used for the treatment of -----

3. Drug of choice in heart block is -----
4. Total no: of carbon atom in hemoglobin molecule is -----
5. Neostygmine is the drug of choice in -----
6. Homatropine is a synthetic derivative containing tropine and -----
7. Etiological agent of "Strawberry Footrot" is -----
8. The dose of Yohimbine and 4-AP in Xylazine reversal is -----
9. Antibiotic that has the ability to bind with calcium is -----
10. Xanthine Oxidase inhibitor that is used to treat Gout is -----

- **KEY**

1. d-penicillamine
2. Shock
3. Isoproterenol
4. 64
5. Myasthenia gravis
6. Mandelic acid
7. Dermatophilus congolensis
8. 0.05-.25mg/Kg
9. Tetracyclins
10. Allopurinol

- **QUESTIONS**

1. Neuromuscular blocker which is kept on ice to prevent hydrolysis is -----
2. Refractive power of eye lens is -----
3. -----connects the lateral and third ventricles in brain
4. The breed of dog sensitive to thiopentone is -----
5. Local anesthetic with antifungal and antibiotic action is -----
6. Drug of choice for tape worms in poultry is -----
7. Commonly used anesthetic that by-passes stage II of anesthesia.
8. Antibody with shortest half life is -----
9. The cells lining the ventricles of brain -----
10. Bierbeck granules are present in -----

KEY

1. Succinyl choline
2. 59 D
3. Foramen of Monroe
4. Grey hound
5. Dorsacaine
6. Di butyl tin di laurate
7. Barbiturates

8. IgE
9. Ependymal cells
10. Dendritic cells

• **QUESTIONS**

1. -----% of oxygen consumed is used by brain
2. Most potent local anesthetic is -----
3. Fibrosis of yoke gall in cattle is also known as -----
4. -----is the condition seen in horses due to pressure of collar on neck
5. Malignant hyperthermia in swine is caused by-----anesthesia
6. Cart wheel chromatin and Russel bodies are seen in -----
7. The ratio of systolic, diastolic and pulse pressure is -----
8. Mineral toxicity that leads to fracture of pes is -----
9. The immunoglobulin with longest hinge region is -----
10. The antagonist for Etorphine.

KEY

1. Eight
2. Bupivacaine
3. Tumor neck
4. Sit fast

5. Halothane
6. Plasma cells
7. 3:2:1
8. Fluorosis
9. IgD
10. Naltrexone

● **QUESTIONS**

1. Remnant of yolk sac in birds is called

2. ----- litre of gas is produced per
minute in ruminants
3. Central lacteal is absent in the villi of

4. Nostrils are most dilatible in -----
and rigid in -----
5. When cattle lie down the rate of respiration

6. Inner surface area of lungs is -----
times the surface area of body
7. During panting, the tidal volume is

8. Gas exchange in birds takes place in

9. Diving ducks have respiratory centre
sensitive to -----
10. Di palmityl lecithin is a -----

KEY

1. Meckel's diverticulum
2. 0.5 – 1.0
3. Birds
4. Horses, Pigs
5. Increased
6. 125
7. Constant
8. Lungs
9. Posture
10. Respiratory Surfactant

● **QUESTIONS**

1. Homogenizer valve is made up of _____
2. At vacuum, milk boils at a temperature of _____
3. Normal acidity of milk is _____
4. Predominant bacteria of milk is _____
5. Lactic acid bacteria are _____ in nature
6. Flavour producing compounds found in curd are _____, _____ and _____
7. Sweet curdling is due to _____-like enzymes
8. Bitty cream is produced by the enzyme _____
9. Milk fat contains generally _____ type of fatty acids

10. Fe content of Khoa is -----

KEY

1. Stellite
2. 50-55oC
3. 0.14 %
4. Micrococci
5. Aerotolerant anaerobes
6. Diacetyl, Acetyl methyl carbinol, Acetalimide
7. Rennin
8. Lecithinase
9. Saturated, Short chain
10. 100 ppm

• **QUESTIONS**

1. Balance wheel of dairy industry is -----
2. Butter contains -----% of fat
3. Bacteria used for ripening of cream
4. Clarified butter fat is the synonym for -----
5. Cheese made from whey
6. ----- is a low fat cheese
7. Sodium alginate is obtained from -----
8. Commonly used packaging material for milk is -----
9. -----% of milk produced in the world is used for cheese making

10. Cheese made from buffalo milk

KEY

1. Butter
2. 80
3. Streptococcus lactis and S. diacetylactis
4. Ghee
5. Ricotta cheese
6. Sapsago
7. Macrocystis pyriferia
8. LDPE food grade
9. 30
10. Mozzarella

• **QUESTIONS**

1. Comb, wattle and earlobes of poultry are developed from
2. The sternum of poultry is shaped
3. Chicken kidney has lobes
4. Brooding instinct is governed by
5. Gallus varius is also called
6. The network of nerves in submucosa of intestine
7. Brush border of intestinal mucosa is constituted by
8. Capacity of rumen in cattle
9. Ileo-caecal, Ileo-colic and Ileo-caeco-colic junction are seen in,

and respectively

10. Ascending colon is replaced by large colon in

KEY

1. Dermis
2. Boat
3. Three
4. Prolactin
5. Green jungle fowl
6. Meissner's plexus
7. Microvilli
8. 250 litres
9. Horse, Dog and Cattle
10. Horse

QUESTIONS

1. Among birds, drinks by suction
2. Starch on hydrolysis yield
3. Cholecystokinin gastric emptying
4. Increased functional activity of colon leads to
5. Cattle secretelitre of saliva per day
6. Among domestic animals, amylase is highest in the saliva of
7. Saliva constitute% of water entering rumen

8. Rennin converts casein to
9. Opening of bile duct to duodenum is guarded by
10. In horse% of energy comes from VFA

KEY

1. Pigeon
2. Maltose
3. Delays
4. Constipation
5. 100-200
6. Swine
7. 80
8. Para casein
9. Sphincter of Oddi
10. 75

- 1. Purkinjee cells are seen in-
- 2. Mammary gland is a type of (gland)-
- 3. Spur core of the fowl is originated from the fusion of- (bone)
- 4. The unpaired muscle in the body is-
- 5. The largest foramen in the body is-
- 6. The single ear ossicle in fowl is-
- 7. Rathke's pouch determines the

development of-

8. Duodenal diverticulum is seen in-(spps)

9. The only cranial nerve that emerges from the dorsal surface of the brain is-

10. The narrow septum dividing lateral ventricles of the brain-

11. Pancreas is a type of- exo/ endocrine / both (choose)

12. Hassal's corpuscles are seen in-

13. Malpighian corpuscles are in- (organ)

14. Vater Pacinian is seen in- injury/high temp/low temp/cold (choose)

- **PHYSIOLOGY**

15. Pace-maker of the heart

16. Chief mineralocorticoid seen in mammals is-

17. Hormone that arises from anterior pituitary with similar action of prolactin is-

18. Aldosterone is secreted from-

19. Hemophilia A is due to the lack of clotting factor-

20. Life span of feline RBC-

21. The instrument used to detect dysfunction of muscle in body-

22. Pepsinogen is secreted from- (cells)

23. Cells associated with clot formation-

24. Spps with normal mature nucleated RBC-

25. Respiration rate in normal healthy horse per minute is-

26. Cholesterol is synthesized from- (compound)

27. ESR of which spp is found highest-

- **PARASITOLOGY**

28. Infectious stage of Moneizia is-

29. Parasite associated through the milk is-

30. Pinworms in equines is-

31. Protozoan disease transmitted via the ova of worm- (nematode)

32. Parasite associated with Vit B12 deficiency –

33. The smallest and most pathogenic tapeworm of poultry-

34. Furcocercus cercaria is associated with-

35. Black disease in sheep is associated with the parasite-

36. Synonym of Paramphistomosis is-

37. The biology and epidemiology of kala azar is associated with the flies-(common name)

38. The tryps transmitted by way of coitus is-

39. Mite causing depluming itch in poultry is-

- **PATHOLOGY**

41. Thrush breast heart is mainly associated with –
42. Bacon spleen is seen in- (type of degeneration)
43. Pearl stain is used in staining-
44. Uremia is seen in conjunction with- vomiting/ abdominal pain / ascites (choose the right one)
45. Counterpart of neutrophils in aves is-
46. Stage of pneumoniae in which clear fibrin thread seen is-
47. In Van den Bergh's test, biphasic reaction is seen in- (type of jaundice)
48. In dermoid cyst-(characteristic feature)
49. In obstructive jaundice blood level of – is seen elevated.
50. Atelectiasis is the collapse of-
51. Smudge cells are broken-(type of WBC)
52. Plasma cells are formed from-
53. Pseudomelanosis coli is –
54. In FMD the lesion accompanies is- vesicular/diphtheretic/necrotic/ulcerative stomatitis (choose)
55. Negri bodies are seen in rabies infected cattle in-(site)
56. Bronze discoloration of liver in poultry is the pathognomonic feature of-

- **EPIDEMIOLOGY**

57. The smallest area which provides all possible conditions of life-

58. Constant presence of disease in an area-

- **MICROBIOLOGY**

59. Immunoglobulin associated with parastic immunity-

60. Hybridoma is the fusion of:

61. Cause of Black disease in sheep (subtype of bacteria)-

62. Stormont test is used to diagnose-

63. ABR test is used for-

64. CAMP test is used to diagnose-

65. LPS is found in-bacteria as antigenic

66. Viral disease possessing both i/n and i/c inclusion body-

67. The viral disease associated with i/n inclusion body in trachea of poultry is-

68. Watery whites are seen in-

69. Family cervidae is vaccinated using-

70. The antibiotic used for black leg is-

71. Hemolytic uremic syndrome is caused due to- strain of E coli

72. In 2005-06 the strain of influenza virus that caused the avian influenza is-

73. Neoplastic diseases of poultry

74. Spread of Mareks is via-

- 75. Contagious ecthyma spreads by way of-
- 76. Autoclaving is done at-
- 77. Brooder pneumonia is caused due to-
- 78. The positive agglutination titre of bovine brucellosis in IU/ml-
- 79. Experimental animal of choice in Glanders is-
- 80. Antigenic determinant site is termed as-

- **PHARMACOLOGY**

- 81. Site of action of penicillin-
- 82. Viomycin is originated from-
- 83. Clavulanic acid is a potent inhibitor of-
- 84. Gunmetal kidney is seen in – toxicosis
- 85. Crooked calf syndrome is due to consumption of-
- 86. As per Codex Alimentarius the max permissible level of Aflatoxin M1 in milk is-
- 87. The drug of choice for straining animals in case of defaecation is-
- 88. The fungal origin autonomic drug is-
- 89. Neurotoxin present in Cobratoxin has the principle-
- 90. Novobiocin and TC are used for the treatment of-
- 91. Drug used as anthelmintic orally and parentally-

- **PUBLIC HEALTH**

92. Anthrax vaccinated animal is to be withheld for a period of-days before slaughter

93. A country when declared to be free from rabies if there is no incidence of rabies for the last – years

94. 'Green rots in eggs' is caused by-

● **CLINICAL MEDICINE**

95. The anion given at the time of pregnancy to prevent milk fever is-

96. Downer cow is seen as a complication to-

97. Eclampsia is a nervous disorder and is known as- (motor irritation/ convulsion-choose)

98. Metabolic acidosis is due to-

99. Colloid used to prevent dehydration-

100. Vitamin E deficiency is manifested as-

101. Vagal indigestion is due to the adhesion of- (rumen/ reticulum/ omasum/ abomasum- choose)

102. The daily Vitamin A requirement in cattle in IU/kg-

103. The mineral deficiency associated with parakeratosis in swine is-

104. Lactation tetany in mares is mainly due to -

105. The mineral associated with Vit B12 synthesis is-

- **SURGERY**

106. The local anaesthetic used in case of dental surgery is-

107. Propofol anaesthesia recovery in dogs is rapid and smooth

108. The site for epidural anaesthesia-

109. Dilated pupil and fish eye is the feature of IV stage of anaesthesia

110. Comminuted fracture can be classified on the basis of-

111. The quality of radiograph depends on-

112. Tension band wiring is used in – (type of fracture)

- **GYNAECOLOGY**

113. Number of motile spermatozoa in cattle for AI is-

114. Substance used as cryogen in equine semen is-

115. Reduced concentration of Spermatozoa is called-

116. For the expression of estrus in cattle, oestrogen is secreted from-

117. The AI in pigs is done at (site)-

118. The site of AI in cattle is-
119. Endometrial cups in equines are from-
(fetal/maternal- choose)
120. RFM in cattle is said to occur if retained
for-(time in hrs.)
121. Superovulation in cattle is induced by-
(hormone)
122. Physiological t_{1/2} of progesterone is-
123. The four limbs of the cow if presented in
the birth canal is indicative of – (twinning; dog
sitting posture; monster; all- choose)
124. The drug of choice for primary uterine
inertia is-
125. Drug used in sows for the induction of
parturition-
126. The source of Prostaglandins in semen is
-
127. The entry of Spermatozoa to ova is by
way of enzyme-
128. Endocrine cells of the testis is-
129. Thawing temperature of frozen semen-
130. The gestation length of cow is-

- **Veterinary Parasitology**

1. Neospora caninum is parasite of? dog A).
Dog B.) Horse C) Sheep D) goat
2. Which of the following is not a

haemoprotozoan? (fasciola) A) babesia

b) trypanosoma c) theileria d) fasciola

3. Traumatic hepatitis in sheep is caused by? Fasciola hepatica

4. Barrel shaped egg with plugs at both ends is found in ? Trichuris sp

5. Which is the heart worm of dog? Dirofilaria immitis

6. The causative agent of caecal coccidiosis? Eimeria tenella

7. Intermediate host for Dipylidium caninum? flea

8. Intermediate host for Prosthogonimus sp.? nymphs of dragon fly

9. Haemoglobinuria in cattle is caused by? Babesia bigemina (Babesia bigemina, Babesia bovis)

10. Parasite which causes tumour condition in dogs? Spirocerca lupi

11. Drug of choice for theileria? buparvaquone

12. Which of the following has direct life cycle? ascarids

13. Infective stage for Schistosoma? cercaria

- **Veterinary Epidemiology, Preventive Medicine & Clinical Medicine**

1. Host which carries the infection with clinical signs?.....reservoir host
2. Vitamin which is anti-hemorrhagic?.....vit K
3. Which strain of New Castle disease is used for the vaccination in a day old chick ?.....
4. Age at which FMD vaccination starts?.....4th month
5. Respiratory rate in horses?.....8-18/min
6. Obvious sign of per-acute case of HS is?.....(death,fever)
7. Corneal opacity in dogs is caused by?.....Trypanosoma evansi.
8. Botryomycosis is caused by?.....Staphylococcus aureus
9. Enterotoxaemia in sheep is caused by?.....Cl.perfringens
10. Normal constituent of urine of cattle is?.....urea (urea, glucose,ketone bodies,bile pigments)
11. Deficiency of which vitamin causes rickets in poultry?.....vit-D
12. Contagious glander is caused

- by?.....Pseudomonas mallei
13. Which strain of FMD which is not present in India?.....SAT-1
14. Branch of epidemiology deals with descriptive analysis of genetic effect on population?...genetic epidemiology
15. Epidemic curve represents?.....max & min distribution
16. Panting is absent in? a)dog b)cat c)poultry d)horse
17. Vaccination can be done for which neoplastic disease?.....marek's disease
18. Soundless bellowing in cattle can be noticed in?.....(acetonemia,rabies)
19. Detection of floating organs in stomach can be done by?.....ballottement
20. Which is the most suitable drug used for pneumonia in horses caused by anaerobic organisms?.....metronidazole
21. .Night blindness is caused by the deficiency of which vitamin?.....Vit-A
22. Transmission of infection from layer to egg is known as?.....vertical transmission
23. Scarlet fever is caused by?.....Streptococcus
24. Sugar odor in urine of cattle is due

to?.....ketosis

25. Goitre is due to deficiency

of?.....iodine

26. Which enzyme is decrease in thiamine deficiency?.....erythrocyte transketolase

27. Which one of the following is an arthropod borne disease?.....ephemeral fever

28. Eating of inanimate objects is known as?.....PICA

- **Veterinary Pharmacology & Toxicology**

1. Drug which act as proton pump inhibitor?.....omeprazole

2. Drug of choice for chronic heart failure?.....digitoxin

3. Which of the following compound causes irreversible inhibition of Ach esterase?.....O.P compounds

4. Drug of choice for treatment of carbamate poisoning?.....atropines only, not PAM

5. Rodenticide which act more effectively on full stomach?..... (zinc phosphide, ANTU)

6. Plant poisoning which causes deficiency of thiamine?.....pteridium sp.

7. Plant toxin which causes cytotoxic anoxia and hemorrhage?.....Datura sp.

8. Antibiotic which act on peptidase transferase enzyme?.....cephalosporin
9. Antibiotic which is not bacteriostatic?
....ampicillin (A)tetracycline
b)chloramphenicol c)ampicillin)
10. During fever concentration of which PG will increase due to release of IL-1?.....PGE2
11. Antibiotic which doesn't have MOA either by inhibiting cell wall or protein synthesis?.....ciprofloxacin
12. Drug used in both bronchodilator and uterine relaxation?.....salbutamol
13. Sulphonamide causes which condition?.....crystalluria
14. In dogs sulphonamide excreted through?.....glucuronidation
15. Antibiotic which is contraindicated in young animals below one year old animals?.....enrofloxacin
16. Which of the following drug causes nephrotoxicity?.....Streptomycin

- **Veterinary Microbiology**

1. Koster stain used for?.....Brucella

2. Fungal cell wall doesn't contain? (Muramic acid) A)chitin b)ergosterol c)muramic acid d)polysaccharide
3. Which is an example of non-segmented virus?.....paramyxo
4. Ag binding site on Ab?.....both heavy and light chain
5. Germinal center of lymph node mainly contains?.....B-cells
6. In late fetal life which are the organs of haemopoiesis?.....liver and spleen
7. Which Ab is present in maximum conc. in milk?.....Ig A
8. Which Ab is present during allergic reaction?.....Ig E
9. Pearl eye is associated with which disease?.....marek's disease
10. Substance added to enhance the immunity by using inactivated microbes?.....adjuvant
11. Which of the following is not an innate factor of immunity?infection A)age b)sex c)species d)infection
12. Exotoxins are mainly secreted by?.....gram+ve bacteria
13. Leechy disease also known as?.....Angara disease
14. Russell body is present

- in?.....plasma cell
15. Coggin's test is done for?.....EIA
16. Humoral immunity is associated with.....B lymphocytes
17. Which one is known as scavenger cells?.....macrophage
18. Mycolic acid is present in cell wall of?.....Mycobacterium
19. Lumpy jaw is caused by?.....Actinomyces bovis
20. Protein which is specific for viral infection?.....interferon
21. Strangles in horses is caused by?.....Streptococcus equi
22. Cell membrane of bacteria includes?..... aminoacids,carbohydrate,fatty acids,enzymes
23. Which one of the virus not comes under paramyxovirus?Reovirus A)R.P b)C.D c)PPR d)Reovirus
24. which of the following is a segmented virus?.....orthomyxovirus

- **Animal Reproduction**

1. In which animal preovulatory luteinisation of ova noticed?.....bitch
2. Bimanual pregnancy diagnosis mainly used

- for?.....sheep and goat
3. Amniotic vesicle can be palpated for pregnancy diagnosis in cattle on?.....32-35 days
4. Uterine inertia can't be treated by?.....Clenbuterone A)oxytocin b)PGF₂α c)Clenbuterone d)ergosterone
5. Example for induced ovulator?.....camel
6. Breech presentation is?.....posterior presentation with flexed hind limbs
7. Still birth means?.....expulsion of dead fetus after full term pregnancy
8. Accumulation of pus in uterus is called?.....Pyometra
9. Which one is semen extender?.....Egg yolk citrate
10. Expulsion of placenta comes under which stage of pregnancy ?.....III stage of parturition
11. Uterine involution means?.....recovering the shape of uterus after parturition
12. Foetus covered with muconium at time of parturition indicate?.....struggling due to hypoxia
13. Which polar body is released during

ovulation in cattle?..... 1 polar body

- **Veterinary Pathology**

1. Disease in which it is not advised to open carcass for post-mortem?anthrax

2. Fistulous tract can be defined as ?.....two openings connected by endothelial lining

3. Death of cell in living tissue is known as?.....necrosis

4. Proventricular hemorrhage is pathognomic sign of which disease?.....new castle disease

5. Sore teat is?.....ulcerative mammimitis

6. On PM of deer died due to TB will reveal?.....swollen lymph nodes

7. I.B in rabies is?.....negri bodies

8. Inflammation of fallopian tube?.....salpingitis

9. Lymphoma is which type of tumor?.....benign tumor

10. Corrugation of intestine is noticed in?.....John's disease

11. Reduction in size of the organ after attaining full maturity?.....atrophy

12. Jacob ulcer also known as?.....squamous cell carcinoma
13. Due to blood circulation which part of nephron will affect first by amyliodosis?.....glomerulus
14. Inflammation of rectum is known as?.....proctitis
15. Inflammation of S/C tissue?.....cellulitis

- **Veterinary Anatomy**

1. Unpaired cartilage in larynx?.....epiglottis
2. A short and large projection arise from cell body of neuron?.....Dendron& axon
3. Which is specialized C.T?.....blood and cartilage
4. Which base pair is absent in DNA?.....uracil
5. Renal pelvis is absent in?.....ox
6. Collagen-II is present in?.....cartilage
7. Lymph node is absent in?.....chicken
8. Nucleated RBC is seen poultry

- **Veterinary Physiology**

1. Heparin act on which clotting factor ?.....factor II,VII,IX
2. Life span of RBC in dog?.....100-120 days
3. Which one is exocrine gland?sweat gland(A)pineal b)hypothalamus c)sweat gland d)adrenal gland)
4. Sertoli cell secrete?testosteroneA)sperm b)testosterone c)seminal fluid d)estrogen
5. Serum doesn't contain?.....fibrinogen
6. Organelle known as suicidal bag?.....Lysosomes
7. Maximum water absorption occur at which part of intestine?.....large intestine

- **Veterinary Surgery & Radiology**

1. Lambert pattern suture is used in?.....hollow organs
2. Complication of pyloric stenosis is?.....hypertrophy of gastric mucosa
3. Longest bone of hind limb?.....femur
4. By reduction which fracture can be healed easily?.....long bone oblique fracture
5. Unit of measurement for energy of X-

ray?.....eV

6. A good X-ray film will have?.....(high contrast b/n adjuscent area,low contrast b/n adjuscent area)

7. Perineal urethrotomy is indicated in?.....post. obstruction in os penis

8. Anesthesia used in reptiles?.....ketamine

9. Condition in which scrotal ablation is advised?.....neoplasm

10. Removal of both ovaries and uterus?.....pan hysterectomy

11. Cryosurgery is done by using?.....liquid N₂

12. Common absorbable suture material used in surgery?.....catgut

13. Oesophagectomy means?.....cutting a segment of esophagus

- **Veterinary Public Health**

1. Zoonotic disease spread from milk?.....T.B

2. Which of the following disease is non zoonotic?.....PPR A)rabies b)brucella c)PPR d)T.B

3. Acute cases of biological hazard needs?.....single exposure
4. In safety testing of food which factor is assessed?.....risk assessment
5. Which of the following doesn't cause food poisoning? A)Cl.perfringens
b)streptococcus c)staphylococcus d)Cl.tetani
6. Which procedure to be followed to prevent infection in zoo before introducing a new animal?.....quarantine period

- 1. Which of the following inhibits aggregation of platelets
 - o Aspirin; Thromboxane A2; Urokinase; Streptokinase
- 2. The longest muscle in animal body is:
 - o Biceps femoris; Longissimus dorsi; Longissimus costarum; Levator costarum
- 3. Epithelial pearls are seen in
 - o Basal cell carcinoma; Adenocarcinoma; Trichoepithelioma; Squamous cell Carcinoma
- 4. Motility of bacteria is due to
 - o Plasmid; Flagella; Pili; None
- 5. The organ needs to be examined for

Trichinella spiralis in routine PM examination
o Lungs; Diaphragm; Spleen; Intestine

- 6. The following have branching except:
o Actinomycetes; Nocardia; Mycobacterium;
Listeria
- 7. The zoonotic disease involving birds playing
an important role in the transmission:
o Salmonellosis; Campylobacterosis; Influenza;
All
- 8. GnRH is secreted from:
o Hypothalamus; Hypophysis; Ovary; Uterus
- 9. Thawing is done at:
o 300C-30s; 370C-30s; 400C-30s; 250C-20s
- 10. Hjarre's disease in poultry is due to
o E coli; Shigella; Salmonella; Proteus
- 11. Type of lenses in electron microscope:
o Glass; Electrostatic; Quartz; None
- 12. Average volume of semen ejaculate in
boar (ml) is:
o 10; 100; 250; 500
- 13. The anaesthesia which facilitates the
examination of penis and prepuce
o Epidural; Pudental; Paravertebral; High

Epidural

- 14. *Brucella ovis* infection in ram is causes
 - o Posthitis; Epididymitis; Orchitis; Prostatitis
- 15. Calcitonin is secreted by
 - o Parathyroid; Adrenal; Thyroid; Ovary
- 16. Type of WBC most numerous in cows is
 - o Eosinophils; Lymphocytes; Neutrophils; Monocytes
- 17. Duration of spermatogenesis (days) in buffalo bulls:
 - o 64; 54; 48; 40
- 18. The antibiotic doesn't have dose dependent antibacterial action
 - o OTC; Amikacin; Enrofloxacin; Sulfadiazine
- 19. The estrogen antagonist used to treat mammary and endometrial carcinoma in bitch
 - o Megestrol acetate; Tamoxifen citrate; Estradiol cypionate; Mitotane
- 20. Cyclozoonosis is related to:
 - o Brucellosis; Echinococcosis; Leishmaniosis; None
- 21. Subacute glomerulonephritis is grossly described as

o White Spotted Kidney; Large White Kidney; Small Granular Contracted Kidney; Flea Bitten Kidney

- 22. Vagus nerve is:
 - o Sensory Nerve; Motor Nerve; Mixed Nerve; Spinal Nerve
- 23. Ovulation takes place at the end of estrus period in:
 - o Canine; Bovine; Ovine; Caprine
- 24. The following is to be injected prior to any major surgery/ wound management in horses
 - o Antibiotics; Styptics; NSAIDs; Tetanus toxoid
- 25. The following produces Aflatoxin:
 - o Penicillium notatum; Penicillium rubri; Aspergillus fumigates; Trichophyton sp.
- 26. Acute gangrenous myositis is characteristic pathological lesion of:
 - o Anthrax; BQ; Leptospirosis; Pasteurellosis
- 27. Type of Nucleic acid present in virus:
 - o DNA; RNA; Both; Either
- 28. World environment day falls on:
 - o February 12; April 8; June 5; October 4
- 29. Lobulation of the lungs is distinct in:

- o Cow; Horse; Dog; Fowl
- 30. The number of Lumbar vertebrae in dog is:
 - o 6; 5; 7; 8
- 31. Mode of hook worm infection is mainly through
 - o Oral; Skin Penetration; Lactogenic; All
- 32. The nucleated thrombocytes are present in blood of:
 - o Horse; Camel; Fowl; Cow
- 33. The disease not produced by Mycoplasma
 - o CRD; CBPP; CCPP; BSE
- 34. The following species not affected by FMD
 - o Elephant; Gaur; Rhino; Wild Boar
- 35. Type of animals equines are:
 - o Polyestrus; Seasonally Polyestrus; Monoestrus; None
- 36. Bitterness of milk is due to
 - o Proteolysis; Lipolysis; Autolysis; All
- 37. The important vitamin that inactivates free radicals
 - o Vitamin A; Vitamin B; Vitamin D; Vitamin E
- 38. Which of the following diseases in poultry

is not vertically transmitted?

o EDS 76; Mycoplasmosis; Lymphoid Leucosis;
New Castle Disease

- 39. The ingredient of blister is:
 - o Mag sulph; Bin Iodide of mercury; Copper sulph; Iodine
- 40. The vector through which Trypanosomes are transmitted
 - o Tabanus; Anopheles; Culicoides; Boophilus
- 41. Camel is
 - o Spontaneous Ovulator; Induced Ovulator; Silent Ovulator; None
- 42. The largest immunoglobulin
 - o Ig G; Ig M; Ig A; Ig D
- 43. An example of long duration local anaesthetic
 - o Bupivacaine; Lignocaine; Lidocaine; Paracaine
- 44. The chemical used to control snail population
 - o Copper sulph; Pot hydroxide; Carbon tetrachloride; None
- 45. The infective stage of Schistosoma spps.

- o Eggs; Sporocyst; Cercaria; Metacercaria
- 46. Reserpine is obtained from
 - o *Ocimum sanctum*; *Adhatoda vasica*;
 - Leptadenia Reticularis*; *Rauwolfia serpentina*
- 47. Soil erosion is due to:
 - o Deforestation; Soil Formation; Soil Conservation; All
- 48. Diffuse suppuration in the sub cutaneous tissue is
 - o Pustule; Phlegmon; Acne; Furuncle
- 49. During second stage of parturition there is a release of an extra amount of
 - o Oestrogen; Progesterone; Oxytocin; PGF₂ alfa
- 50. *Brucella* organisms multiply in the presence of the alcohol
 - o Glucose; Galactose; Erythritol; Fructose
- 51. Domestic sewage contains the following
 - o Chemicals; Organic Matter; Highly Toxic Substances; All
- 52. Gasping is a symptom in:
 - o ILT; Avian Influenza; Avian Leucosis;

Ranikhet Disease

- 53. The sporadic disease is:
 - o HS; Tetanus; FMD; Avian Influenza
- 54. The leucocytic granules more toxic to parasites
 - o Eosinophils; neutrophils; basophils; lymphocytes
- 55. The target organ of shock in dogs is
 - o Liver; Lungs; Intestine; Heart
- 56. Electrical stunning is widely used in
 - o Cattle, Poultry; Pig, Poultry; Buffalo, Poultry; Sheep
- 57. The vector for Leishmania is
 - o Phlebotomus; Culicoides; Tabanus; Musca
- 58. The presentation of fetus in breech presentation is
 - o Anterio Longitudinal; Posterior Longitudinal; Dorso Transverse; Ventro Transverse
- 59. During recent outbreak of Avian Influenza in South East countries, subtype has been identified
 - o H5N1; H5N2; H2N9; H1N5
- 60. Garlic like odour of gastrointestinal

contents is suggestive of poisoning with
o Nitrate ; HCN; Alkali; Phosphorus

- 61. The extracellular parasite
o Babesia; Theileria; Anaplasma;
Trypanosome
- 62. Occupational radiation hazards can be prevented by wearing an apron of
o Aluminium; Copper; Lead; Silver
- 63. The largest deer found in india
o Sambar; Nilgai; Spotted Deer; Barasingah
- 64. The state bird of Gujarat
o King Vulture; Saras Crane; Pea Fowl;
Flamingo
- 65. Campylobacterosis is diagnosed by
o Milk Ring Test; HA; Intradermal Inoculation;
Vaginal Mucous Agglutination Test
- 66. Cubonis test is used to diagnose pregnancy in
o Bitch; Mare; Sow; Cow
- 67. Programmed cell death is called
o Phagocytosis; Mytosis; Necrosis; Apoptosis
- 68. Rodent control is very much effective in control of

- o Leptospirosis; Plague; Salmonellosis; All
- 69. The term epsilon is associated with
 - o Brucellosis; Enterotoxaemia; Marek's Disease; Erysipelas
- 70. Blow gun rifle is fairly accurate for the target up to the distance of
 - o 40 metres; 80 feet; 80 metres; 40 feet
- 71. A live vaccine among the following
 - o HS; Brucella S19; BQ; Rabies
- 72. A well established protozoal disease transmitted by way of milk
 - o Toxoplasmosis; Giardiasis; Cryptosporidiosis; None
- 73. Cells spermatids are
 - o Haploids; Diploids; Tetraploids; Triploids
- 74. Navicular bone in horses
 - o Patella; Proximal Sesamoids; Febella; Distal Sesamoids
- 75. Length of gestation in mares
 - o 9 months 9 days; 8 months 8 days; 10 months 10 days; 11 months 11 days
- 76. Ingestion of Lantana foliage causes
 - o Hepatotoxicity And Secondary

Photosensitization; Acute Enteritis; Pulmonary Haemorrhage; Nephrotoxicity

- 77. Parasite of pulmonary artery
 - o Sarcoptes; Cysticercus; Toxoplasma; Dirofilaria immitis
- 78. Irritant and non isotonic drug solution are injected by which route
 - o Intravenous; Intramuscular; Sub Cutaneous; Intraperitoneal
- 79. Deaths among clinically affected animals indicates
 - o Incident Rates; Morbidity Rate; Fatality Rate; Prevalence Rate
- 80. The stomach fluke disease is caused in cattle due to
 - o Paramphistomum cervi; Moniezia expansa; Fasciola hepatica; Neoascaris vitulorum
- 81. In paraffin block making technique fat/lipid is dissolved by
 - o Formaline; Xylene; Paraffin; Alcohol
- 82. Electron microscope was invented by
 - o Leewenhock; Pastuer; Knoll and Ruska; Elford

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

- 90. Name the drug of choice for treatment of Thielerosis
 - Suramin; Buparvaquon; Nitrothiozol; 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

o 1; 3; 5; 7

- 98. The inflammation of hoof of horse is called
 - o Synovitis; Bursitis; Naviculitis; Laminitis
- 99. The brachicephalic breed of dog
 - o Collie; Pug; Doberman; German Shepherd
- 100. Warfarin poisoning is treated by administration of Vitamin
 - o K; E; A; C
- 101. Lemberts pattern is not used for sutured
 - o Uterus; Urinary Bladder; Oesophagus; Rumen
- 102. The smallest virus
 - o Fowlpox; FMD; Ranikhet Disease; Avian Leukosis
- 103. Atropine :
 - o Reduces metabolic rate;
 - o Reduces salivary, gastric and bronchial secretion;
 - o Reduces body temperature
 - o Decrease intestinal motility
- 104. The larva that causes VLM
 - o Toxocara canis; Ascaris suum; Ancylostoma caninum; Dirofilaria immitis

- 105. The microchromosomes are seen in
 - o Cattle; Horse; Poultry; Dog
- 106. Othaematoma is the haematoma involving
 - o Eye and Ear; Ear; Eye; None
- 107. Punched ulcers in abomassum is caused by
 - o Babesia bigemina; Theileria annulata; Anaplasma marginale; Babesia bovis
- 108. Death of animal suffering from rabies occurs due to
 - o Neuritis; Gastritis; Asphyxia; Paralysis
- 109. Cattle genome is made up of how many organic bases
 - o 2.9-3.1 trillion; 2.9-3.1 billion; 2.9-3.1 million; 2.9-3.1 lakh
- 110. Brooder pneumonia is caused by
 - o Aspergillus flavus; Aspergillus ochoreceal; Aspergillus parasiticus; Aspergillus fumigatus
- 111. Paralysis of hind quarter is termed as
 - o Hemiplegia; Diplegia; Quadriplegia; Paraplegia
- 112. Teat surgery is more successful during

which stage

o Lactating Stage; Dry Stage; Post Pubertal Stage; None

- 113. Pipe stem liver condition is seen in which of the following infection
 - o Fasciola hepatica; Moneizia expansa; Dicrocoelium dentriticum; None
- 114. The diabetes insipidus develops due to deficiency of
 - o ADH; Glucagon; Insulin; Aldosterone
- 115. An important source of biofuel is (Ethanol)
 - o Jowar; Oat; Sugarcane; Rice
- 116. Main immunoglobulin protecting mucosal surface is:
 - o Ig M; Ig A; Ig G; All
- 117. Surgical removal of stones from the urinary bladder is known as
 - o Nephrectomy; Cystotomy; Penectomy; Nephrotomy
- 118. The reference test for diagnosis of rabies
 - o FAT; AGPT; Agglutination; ELISA
- 119. Toxic principle present in cotton seed is
 - o Sinigrin; Gossypol; Tannin; Mimosin

- 120. Microglia cells are present in
 - o Blood; Bone Marrow; Pancreas; Brain
- 121. Suturing of the uterus after the Caesarean section starts from
 - o Ovarian end; Cervical end; Middle of the uterus; Either of end
- 122. Anaesthesia is produced when the blood concentration of chloroform reaches to level of
 - o 0.035%; 0.35%; 0.053%; 1.035%
- 123. Surgical operation for providing drainage from middle ear is known as
 - o Zepps Operation; Hyovertebrotomy; Ventriculectomy; Bulla osteotomy
- 124. T lymphocytes get maturity in organ
 - o Liver; Thymus; Spleen; Bursa
- 125. Antibacterial drug associated with nephrotoxicity is
 - o Tetracycline; Chloramphenicol; Streptomycin; Levofloxacin
- 126. Kohler and Mihalstein are known for the achievement in
 - o Hybridoma; Nucleotide sequencing; Viral Culture; Prion discovery

- 127. Bronze discoloration of liver is characteristic feature of
 - o Pullorum Disease; Fowl Cholera; Fowl Typhoid; Spirochaetosis
- 128. Double stranded RNA is found in
 - o Retro Virus; Reo Virus; Pox Virus; Parvo Virus
- 129. The total dry matter requirement of cow
 - o 3% of body wt; 3% of metabolic body wt; 5% of body wt; 1% of body wt
- 130. Raw egg feeding in dog may produce deficiency of
 - o Biotin; Cholin; Niacin; Pantothenic acid
- 131. Catgut is prepared from the intestine of
 - o Rabbit; Sheep; Pig; Cat
- 132. Sodium calcium EDTA is used as antidote in poisoning of
 - o Arsenic; Mercury; Lead; Copper
- 133. The common infectious disease affecting snake
 - o Brucellosis; Pasteurellosis; Salmonellosis; Tuberculosis
- 134. WTO is related with

- o Environment; Biodiversity; International tourism; International trade
- 135. Nervous sign in ketosis is due to
 - o Hypocalcemia; Hypoproteinemia; Hypoglycemia; Hypophosphatemia
- 136. Amputation of horn in goats can be done by blocking of
 - o Cornual nerve; Infraorbital; Cornual and Infraorbital; None
- 137. The range of pH of rumen liquor
 - o 2-3; 5-7; 7-8; 3-5
- 138. Highly toxic poison has oral LD50 value of
 - o <1 mg/kg; 1-50 mg/kg; 50-100 mg/kg; 1-50 mg/kg
- 139. The molecules is an endogenous antigen
 - o MHC Type I; MHC Type II; MHC Type III; MHC Type E
- 140. Thin membranous partition between lateral ventricles of brain
 - o Tapetum lucidum; Septum lucidum; Intradorsal septum; Inter ventricular septum
- 141. Whales and dolphins breathe through

- o Gills; Spiracles; Body surface; Lungs
- 142. The following characteristic palpable through the rectal examination for the pregnancy diagnosis in 35 days in cattle
 - o Asymmetry of uterine horn; CL on ovary; Slipping of foetal membrane; All of above
- 143. To relieve the right side uterine torsion, animal should be cast in
 - o Left side; Right side; Dorsal recumbency; Sternal recumbency
- 144. The ligament surgically cut for correction of subluxation of patella in bovine
 - o Dorsal; Ventral; Middle; Medial
- 145. Dilated pupils and fish eye appearance is observed in which stage of anaesthesia
 - o Stage 3; Stage 1; Stage 2; Stage 4

- **DISEASES | RELATED TERMS**

- (i) Mastitis (A) Wart hog disease
- (ii) Strangles (B) Multiceps multiceps
- (iii) African swine fever (C) BTB Test
- (iv) Gid (D) Blue eye
- (v) Infectious Canine Hepatitis (E) Equine Distemper

- **DISEASES | ETIOLOGY**

- (i) Hard pad disease (A) *Borrelia anserina*
- (ii) Wool sorter disease (B) *Bacillus anthracis*
- (iii) IBR (C) *Coxiella burnetti*
- (iv) Q fever (D) Bovine Herpes Virus
- (v) Fowl Spirochaetosis (E) Canine Distemper virus

- **ITEMS | RELATED TERMS**

- (i) Brucellosis control (A) Progesterone
- (ii) Campylobacteriosis (B) Metronidazole
- (iii) Trichomoniosis (C) Estrogen
- (iv) Follicle (D) Vaccine S 19
- (v) Corpus Luteum (E) StreptoPenicillin

- **ITEMS | RELATED TERMS**

- (i) Meloxicam (A) Xylazine antagonist
- (ii) Congenital (B) Equithesin
- (iii) Yohimbine (C) Recto vaginal fistula
- (iv) Pudental nerve block (D) NSAID
- (v) Anaesthesia for horse (E) Ischio rectal fossa

- **DRUGS | RELATED TERMS**

- (i) Xylazine (A) Inhalant Anaesthesia
- (ii) Largactil (B) Muscle Relaxant
- (iii) Ether (C) Osmotic Diuretic
- (iv) Mephenesin (D) Sedative
- (v) Mannitol (E) Chlorpromazine HCl

- **ITEMS | RELATED TERMS**

- (i) Gastrulation (A) Ear Ossicle
- (ii) Malleus (B) Prostate
- (iii) Sex gland male dog (C) Cock
- (iv) Synsarcosis (D) Trilaminar Embryo
- (v) Spur (E) Muscular Joint-Forelimb
- **ORGANISM | SELECTIVE MEDIUM**
 - (i) Salmonella (A) Mannitol salt Agar
 - (ii) Staph. aureus (B) LJ Medium
 - (iii) Hemophilus (C) Chocolate Agar
 - (iv) E coli (D) Brilliant Green Agar
 - (v) Mycobacterium tuberculosis (E) EMB Agar
- **SPECIES | SPERM CONCENTRATION**
 - (i) Buffalo bull (A) 3000 million/ml
 - (ii) Ram (B) 3600 million/ml
 - (iii) Stallion (C) 250 million/ml
 - (iv) Cock (D) 1000 million/ml
 - (v) Boar (E) 150 million/ml
- **SOURCE | ANTIBACTERIAL AGENT**
 - (i) Strept. venezulae (A) Polymyxin / Colistin
 - (ii) Micromonospora purpurea (B) Neomycin
 - (iii) Bacillus colistinus (C) Gentamicin
 - (iv) Bacillus subtilis (D) Bacitracin
 - (v) Strept. fradiae (E) Chloramphenicol
- **DISEASES | RELATED TERMS**
 - (i) Shipping fever (A) Brucellosis
 - (ii) Tick fever (B) Pasteurellosis
 - (iii) Splenic fever (C) Salmonellosis

(iv) Malta fever (D) Ehrlichiosis

(v) Enteric fever (E) Anthrax

- 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" a) Southdown b) Rambouillet c) Merino d) Cheviot
- 5. 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
- 6. 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 oestrus d) 1-2 days after the onset of true oestrus
- 7. Laying of leathery eggs in chicken is associated with a) Raillietina b) Prosthogonimus b) Heterakis d) Davainea
- 8. Which is an imino acid? A) Proline b) Tryptophan c) Arginine d) Glycine

- 9. 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
- 10. Which of the following is a spasmolytic agent a) Hyoscine b) Vetrabutine c) Dipyrone d) All
- 11. Recurring tympany is noticed in following condition a) TRP b) Diaphragmatic hernia c) Reticulo-omasal stenosis d) All
- 12. 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
- 13. 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
- 14. 'Toxovax' contains Tachyzoites of ----- strain of Toxoplasma gondii. a) P13b) 1B c) 014 d) S48
- 15. 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
- 16. The incubation temperature of Yoghurt

culture is a) 41-43°C b) 38-40°C c) 32-33°C d) Lower

- 17. A disinfectant of choice at FMD outbreak a) 2% NaOH b) 4% Na₂CO₃ c) Both d) None of these
- 18. Calf starter starts at-----of age a) 4 th day b) 1-2 w c) 2-3w d) 3-4w
- 19. “Dog sitting position” of Mare and Cow is which presentation a) Oblique dorsovertical b) Dorsotransverse c) ventrotransverse d) None
- 20. 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
- 21. “Varocay bodies” are characteristic of which tumour? a) Meningioma b) Glioma c) Neuroblastoma d) 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) Microsporium 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
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- 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 Sulfite c) Potassium Bromide d) Sodium carbonate
- 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. Eosinophilic meningoencephalitis- Rabies C. Lymphocytic meningoencephalomyelitis- Hog cholera Vetcos.com Question Bank | www.questionbank.vetcos.com 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 a) 133 b) 119 c) 105 d) 98
- 47. The bacterial strain used for the production of BCG vaccine in India a) Nakayama b) PM-1503-3M c) 17 D d) Danish 1331
- 48. The earliest time for the following methods of pregnancy diagnosis in Cow is given below. Identify the right pair.
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www.questionbank.vetcos.com 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) A&B b)C&D c)E&F d)All
- 49. 'Amyloid like tubercles' are seen in case of Tuberculosis in a) Bovines b) Horse c) Dogs d) Pig
- 50. The drug of choice for coccidiosis in poultry A) Sulphaguanidine b) Sulpphaquinoxaline c) Phthalyl sulpha thiazole d) Sulphamethyl phenazole
- 51. 'Strauss test' is used for the diagnosis of following diseases except a) Wooden tongue

- b) Lumpy jaw c) Glanders d) Brucellosis
- 52. The stain used for the demonstration of urate crystals a) Alcian blue b) Degalantha c) Congo Red d) Best carmine
 - 53. Type of burns where Bullae/Vesicles is present a) 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
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- 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 Vetcos.com
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- 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) Immunocyte dyscrasia 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 Trypanosomiasis 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 Vetcos.com
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- 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-arrhythmic agents a) Lidocaine & Quinidine b) Propranolol & Tenolol c) Bretylium & Amiodarone d) Diltiazem & Nifedipine
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- 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) Mozzarella 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 a) A b) B c) C d) D Vetcos.com Question Bank |
- 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 diary 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

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

• VETERINARY SCIENCE QUESTION

BANK VETERINARY SURGERY AND RADIOLOGY

- 1. In goats, corneal block is produced by blocking _____ & _____ nerves.
- 2. _____ type of swelling is fluctuating in nature and _____ type pits on pressure.
- 3. Kelotomy is indicated in _____ type of hernia.
- 4. 4 Rs of orthopedic management are _____, _____, _____ and _____.
- 6. Salter-Harris classification is applicable to _____ types of fractures. . _____ arteries are needed to be ligated in excision of mammary tumors of caudal abdominal glands.
- 8. Which type of fracture is considered to be incomplete _____. 9. Medial deviation of carpus is also known as _____.
- 10. _____ is the condition in which animal places one forelimb exactly in front of other while in movement. 11. The surgical incision into the teats is known as _____. 12. _____ are referred to be as splint bones. 13. Ossification of collateral cartilage is also known as _____.
- 14. Omarthritis is the osteoarthritis of _____ joint. 15. 3rd phalanx is also known as _____.
- 16. Knuckling is due to the contraction of _____. 17. Drawer sign is seen in which condition _____.
- 18. _____ is also known as whirlbone disease. 19. Arthrogyriposis is another term for

_____ Dr. Sheikh Firdous
VETCOS 02 Dr. Firdous Dr. Sheikh Firdous Ahmad
firdousa61@gmail.com 09469691352 Dr. Sheikh
Firdous 3 Friday, November 15, 2014 condition.
20._____ orthopedic condition is
refractory to antibiotic therapy. VETERINARY
GYNAECOLOGY, OBSTETRICS AND ANDROLOGY 1.
Complete or partial loss in libido or mating capacity
is called as _____. 2. _____ is semen
deposition site for cattle through AI. 3.
_____ is main source of energy for semen
and is secreted from _____ gland. 4. Main
reducing agent of semen is _____. 5.
Boar semen has increased amounts of _____
and _____. 6. Sperm maturation occurs
mainly in _____. 7. Uterine torsion can
be _____ or _____ type based on its
location. 8. Mostly _____ type of dystocia is
encountered in polytocous species. Dr. Sheikh
Firdous VETCOS 03 Dr. Firdous Dr. Sheikh Firdous
Ahmad firdousa61@gmail.com 09469691352 Dr.
Sheikh Firdous 4 Friday, November 15, 2014 9.
_____ shape of ovary is seen in equine
species. 10._____ Hormone is used for
superovulation in farm animals. 11._____ is
the drug of choice for treating follicular cysts in
cattle. 12.PMSG is secreted by _____
structures. 13.Placenta dependent animals are
_____ & _____.
14.Pseudopregnancy is seen in _____ &
_____ species. 15._____ is the

drug of choice in trichomoniasis. 16. Glycerol can be used in sperm preservation upto _____ levels.

17. 3 Rs of management of prolapse are _____, _____ and _____.

18. Ovulation occurs after the end of estrus in _____ species.

19. Balanoposthitis is inflammation of _____ and _____.

20. Spines are present in penis of _____ and results in _____

during dismounting. Dr. Sheikh Firdous VETCOS 04

Dr. Firdous Dr. Sheikh Firdous Ahmad

firdousa61@gmail.com 09469691352 Dr. Sheikh

Firdous 5 Friday, November 15, 2014 VETERINARY

PARASITOLOGY 1. Lung worm of poultry is _____.

2. Ear sore is caused by _____.

3. The eye worm of ruminants is _____.

4. Bottle jaw condition is associated with _____.

5. _____ is the hookworm of canines.

6. _____ is the drug of choice for babesiosis. 7. Hydatid cyst is associated with which parasite in canines.

8. _____ species of Taenia is seen in pig

species. 9. Slime balls are seen in life cycle of

which parasite _____.

10. _____ is the drug of choice for thelariosis.

11. _____ is the infective stage for schistoma species.

12. _____ and _____ parasites are mainly

included in piroplasms of ruminants. 13. Myiasis is

caused by _____ parasite. 14. _____ is

also known as common housefly. 15.

_____ are also called as warble flies. Dr.

Sheikh Firdous VETCOS 05 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com 09469691352 Dr. Sheikh Firdous 6 Friday, November 15, 2014 16. Sarcoptic mange in cattle is caused by _____. 17. Collection of skin scrapings is indicated in _____ infestations. 18. _____ is another name for roundworms. 19. The barbed pole worm is another name for _____. 20. _____ is the example of macrocyclic lactones. VETERINARY

MICROBIOLOGY 1. CAMP test is used for _____. 2. Phenomenon of Satellitism is shown by which bacteria _____. 3. Lancefield classification is used for classification of _____. 4. Hemorrhagic septicemia is caused by _____. 5. Ascoli test is used for which organism _____. 6. Footrot is caused by which bacteria _____. 7. Both intranuclear and intra cytoplasmic inclusion bodies are associated with which virus _____. 8. ICH is caused by which virus _____ Dr.

Sheikh Firdous VETCOS 06 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com 09469691352 Dr. Sheikh Firdous 7 Friday, November 15, 2014 9. Which of the viruses is pantropic _____. 10. Rinderpest is caused by _____ virus. 11. Mannitol salt agar is selective for _____. 12. Metallic sheen on EMB agar is characteristic for _____. 13. Wooden tongue is caused by which bacteria _____. 14. Cold enrichment is used for the

isolation of which organism _____.

15. _____ is the microbiological organism used in bioterrorism. 16. BCG vaccine is used in which disease _____.

17. Hot-cold lysis of blood agar is associated with which bacteria _____.

18. Weils disease is another name for disease caused by _____.

19. _____ are resistant to anthrax among mammals. 20. Chinese letter appearance is associated with which bacterial species _____.

Dr. Sheikh Firdous VETCOS 07 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com 09469691352 Dr.

Sheikh Firdous 8 Friday, November 15, 2014

VETERINARY PHYSIOLOGY 1. Heparin is mainly collected from _____.

2. _____ anticoagulant should never be used for blood transfusion. 3. _____ can be used in feed to increase the TSH concentrations in body. 4. _____ is the calcium lowering hormone in body.

5. _____ was the first hormone to be discovered by Bayliss and Starling. 6. _____ have given the structural details of Insulin.

7. Insulin consists of 2 chains with _____ and _____ amino acids connected by _____ bond. 8. _____

hormone is associated with the function of metamorphosis. 9. Ultimobranchial glands are seen in _____, _____ and _____ species.

10. _____ Species have nucleated platelets.

Dr. Sheikh Firdous VETCOS 08 Dr. Firdous Dr.

Sheikh Firdous Ahmad firdousa61@gmail.com

09469691352 Dr. Sheikh Firdous 9 Friday,
November 15, 2014 11. Band cells are _____
_____ 12. Heterophils are neutrophils
of _____ species and they are called as
_____ in rabbits. 13. The estrus cycle in
equines is of _____ duration. 14. _____,
_____, _____ and _____ are
induced ovulators. 15. The only glucogenic VFA in
ruminants is _____. 16. Ear ossicle
present in birds is _____. 17. Swallowing
centre is present in _____. 18. _____
% of carbon dioxide is transported in the form of
bicarbonate in the blood. 19. _____ and
_____ are known as buffer nerves.
20. Sigmoid flexure is present in the penis of
_____, _____ and _____.

VETERINARY ANATOMY 1. The largest muscle of
the animal body is _____. Dr. Sheikh
Firdous VETCOS 09 Dr. Firdous Dr. Sheikh Firdous
Ahmad firdousa61@gmail.com 09469691352 Dr.
Sheikh Firdous 10 Friday, November 15, 2014 2. The
largest bone of the animal body is _____.
3. Navicular bone is another name for
_____. 4. _____ number of
cervical vertebrae occur in dogs. 5. Cranial nerves
are _____ in number. 6. The striated type
of muscles is _____ and _____. 7. The
only unpaired air sac in birds is _____.
8. _____ type of epithelium is characteristic
for urinary system. 9. Peyer's patches are
aggregation of _____.

10. Brunner's glands are associated with which structure _____.

11. The cloaca of birds has three openings i.e. _____, _____ and _____.

12. The site for collection of CSF in small animals is _____.

13. _____ is the largest foramen of animal body.

14. Russell bodies are seen in _____ types of cells.

15. Heparin was originally isolated from _____ tissue from Dr. Sheikh Firdous VETCOS 10 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com 09469691352 Dr. Sheikh Firdous 11 Friday, November 15, 2014 _____ species.

16. Papillary muscles are seen in _____.

17. Parasympathetic supply has _____ effect on heart.

18. Of the radius-ulna structures of fowl, _____ is the largest bone.

19. _____ type of papillae are non-gustatory.

20. Spleen is histologically made of _____ and _____.

VETERINARY MEDICINE

1. Borrell bodies are seen in _____ disease.

2. _____ is the sugar responsible for predilection of Brucella organism in reproductive organs.

3. The pathognomonic finding in ICH is _____.

4. Canine distemper is also called as _____.

5. Biphasic fever is characteristic for _____.

6. Three day sickness is caused by _____.

7. Acute carbohydrate engorgement is another name for Dr. Sheikh Firdous VETCOS 11 Dr. Firdous Dr.

Sheikh Firdous Ahmad firdousa61@gmail.com
09469691352 Dr. Sheikh Firdous 12 Friday,
November 15, 2014 _____.

8. Ecalampsia has peculiarly low levels of _____ in blood. 9. Osteodystrophia fibrosa is also called as _____.

10. _____ is highly pathogenic species of Anaplasma in cattle. 11. Dunkop and Dikkop forms are associated with _____

disease. 12. Canine adenovirus 2 (CAV-2) causes _____ in dogs. 13. _____ is the drug of choice for toxoplasmosis. 14. In milk fever condition, the temperature is _____.

15. _____ is the treatment of choice for actinobacillosis in animals. 16. Dollar signs in ventral abdomen are characteristic for _____.

17. Dourine in equines is caused by _____. 18. Chronic mastitis in goats is mainly caused by _____.

19. The ratio of Calcium to Phosphorus in diet for optimum health Dr. Sheikh Firdous VETCOS 12 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com

09469691352 Dr. Sheikh Firdous 13 Friday,
November 15, 2014 should be _____.

20. Mallein test is done for _____ disease.

VETERINARY PATHOLOGY 1. Sago spleen is seen in _____ condition. 2. Gitter cells are seen in _____. 3. _____ is the stain applied for melanin tissues in histopathology.

4. _____ Carcass should not be opened for PM examination. 5. BSE is caused by

_____. 6. _____ Stain is used for normal histopathological studies. 7. The absence of digits is called as _____. 8. The condition of presence of blood in stools is called as _____. 9. The cooling of body after the death is referred as _____. 10. The normal range of onset of rigor mortis is _____ hours. 11. Hemochromatosis refers to the condition of Dr. Sheikh Firdous VETCOS 13 Dr. Firdous Dr. Sheikh Firdous Ahmad firdousa61@gmail.com 09469691352 Dr. Sheikh Firdous 14 Friday, November 15, 2014 _____. 12. Hemosiderin is _____- containing substance in body. 13. The vander berg test of jaundice may be _____ or _____. 14. Bilirubin is a _____ coloured pigment. 15. The form of bilirubin that comes into the urine is called as _____. 16. Apoptosis is another name for _____. 17. The death of cells in a living vascularised tissue is called as _____. 18. Paint brush hemorrhages in thigh muscles are characteristic for _____ disease. 19. 4Ds of rinderpest disease are _____, _____, _____ and _____. 20. FMD is caused by _____ virus. Dr. Sheikh Firdous VETCOS 14 Dr. Firdous

● **Veterinary**

obstetrics

- 1. Prolonged dystocia leads to fatigue of the uterine muscle and produce contraction or retraction rings called as
 - a. Bandl's ring
 - b. Schaafer's ring
 - c. Robert's ring
 - d. Uterine ring
- 2. The incidence of dystocia in posterior presentation of fetus in unipara is
 - a. Low
 - b. High
 - c. Absent
 - d. Moderate
- 3. Primary uterine inertia is seen most often in which species?
 - a. Mare
 - b. Sow
 - c. Ewe
 - d. Bitch
- 4. Hydrocephalus in cattle is frequently associated with deformed

- a. Muscles
 - b. Head
 - c. Limbs
 - d. Viscera
- 5. Small litter size leads to cause larger fetuses that may predispose to dystocia in
 - a. Ewe
 - b. Goat
 - c. Bitch
 - d. Sow
 - 6. In cat dystocia may be due to postural abnormalities of head and neck and
 - a. Breech presentation
 - b. Wry neck
 - c. Dog sitting posture
 - d. Hip-lock condition
 - 7. Obstetrical hooks may be long or short but should always be
 - a. Sharp
 - b. Blunt
 - c. Pointed
 - d. Straight
 - 8. Williams, Guard's and Ames are different types
 - a. Obstetrical hooks

- b. Chain
- c. Knives
- d. Chisel
- 9. Repulsion may be accomplished by the operator's arm, the arm of an assistant or by a
 - a. Fetotome
 - b. Obstetrical chain
 - c. Ropes
 - d. Crutch repeller
- 10. The corneas are grey and opaque after the fetus has been dead for
 - a. 12-24 hours
 - b. 24-48 hours
 - c. 6 to 12 hours
 - d. 48-72 hours
- 11. Version is most often done while transverse ventral presentation in
 - a. Queen
 - b. Mare
 - c. Buffalo
 - d. Sow
- 12. Dystocia caused by the cord being wrapped around a portion or extremity of fetus
 - a. Frequently occurs in domestic animals
 - b. Frequently causes dystocia

- c. Does not occur in domestic animals
- d. Frequently causes fetal death in domestic animals

- 13. The uterine twisting of the birth canal is often not noticeable in
 - a. 90 degree torsion
 - b. 180 degree torsion
 - c. 270 degree torsion
 - d. 360 degree torsion
- 14. Detruncation in anterior presentation is indicated in rare instances when the fetus is in a
 - a. Dog sitting posture
 - b. Nape presentation
 - c. Breech presentation
 - d. Wry neck
- 15. Downward deviation of the head between the forelimb is occasionally seen in all species except
 - a. Mare
 - b. Ewe
 - c. Sow
 - d. Bitch
- 16. The turning of the fetus on its long axis to bring the fetus into dorso-sacral position is

called

- a. Repulsion
- b. Rotation
- c. Version
- d. Adjustment of extremities

- 17. Williams long cutting hook with a blunt point is very useful for cutting
 - a. Ribs
 - b. Muscles
 - c. Ligaments
 - d. Joints
- 18. When fetal emphysema and sloughing of the hair is present the fetus has been dead for
 - a. 24-48 hours
 - b. 6-12 hours
 - c. 12-24 hours
 - d. 48 hours or more
- 19. Cesarean section is more difficult to perform in which species in comparison to other domestic animals
 - a. Sow
 - b. Bitch
 - c. Mare
 - d. Ewe
- 20. Fetal ascities is seen as an occasional

cause for dystocia in any species but occurs most often in

- a. Mare
- b. Sow
- c. Cow
- d. bitch

- 21. Perosomus elumbis if occurs in posterior presentation may be mistaken for
 - a. Breech presentation
 - b. Dog sitting posture
 - c. Vertex presentation
 - d. Wry neck
- 22. The symptom of ketosis in cow occurs as
 - a. Digestive and nervous form
 - b. Nervous and Urinary form
 - c. Genital and Nervous form
 - d. Digestive and Reproductive form
- 23. The condition of obturator paralysis is
 - a. More prevalent in heifers than in cows
 - b. More prevalent in cows than in heifers
 - c. Commonly prevalent in both cows and heifers
 - d. Not prevalent in heifers and cows
- 24. Most common type of ketosis after parturition in cow is

- a. Primary spontaneous
 - b. Primary nutritional
 - c. Secondary ketosis
 - d. Secondary nutritional
- 25. Puerperal tetany or eclampsia in the bitch and cat is a metabolic disease characterized by
 - a. Hypoglycemia
 - b. Hyperglycemia
 - c. Hypocalcemia
 - d. Hypercalcemia
- 26. During Parturient paresis in cow the blood serum calcium level drops from a normal of 8-12g/100 ml to
 - a. 3-7g/100ml
 - b. Less than 2g/100ml
 - c. 8-10g/100 ml
 - d. Less than 1g/100 ml
- 27. Gluteal paralysis is rare and is described only in
 - a. Mare
 - b. Cow
 - c. Sow
 - d. Ewe
- 28. Hematomas and contusions of the vagina

or the vulva are occasionally noted in all animals but most commonly in

- a. Bitch and Queen
- b. Sow and Bitch
- c. Cow and Ewe
- d. Mare and Sow

- 29. Severe bleeding from the uterus of large animals may be controlled by
 - a. Prolactin
 - b. Oxytocin
 - c. Progesterone
 - d. Gonadotropin
- 30. The volume of lochia from bovine uterus during first 48 hours of parturition is about
 - a. 500-800 ml
 - b. 100-500 ml
 - c. 2000-2500ml
 - d. 1400-1600 ml
- 31. Hysterectomy is often considered in dogs and cats with a prolonged dystocia of
 - a. 6-12 hrs
 - b. 12-18 hrs
 - c. 18-24 hrs
 - d. 24-36 hrs
- 32. In most cows the presence of very relaxed

ligaments indicates that parturition will probably occurs in

- a. 6 to 12 hrs
- b. 12 to 18 hrs
- c. 18 to 24 hrs
- d. 24 to 48 hrs

- 33. The occurrence of wry neck is common in equine fetuses developing
 - a. In posterior presentation
 - b. In anterior presentation
 - c. Transversely
 - d. In all presentations
- 34. At birth what is the approximate percentage of birth weight of foal in relation to the mature weight
 - a. 4 per cent
 - b. 6 per cent
 - c. 9 per cent
 - d. Less than 2 per cent
- 35. Of farm animals which animal born in the most advanced stage of physiological development
 - a. Foal
 - b. Calf
 - c. Piglet

d. Lamb

- 36. High feeding levels may favour dystocia, especially in heifers by excessive deposition of fat in the
 - a. Abdominal region
 - b. Genitalia
 - c. Pelvic region
 - d. Uterine horn

- 37. Secondary uterine inertia that is seen in all species is the result of
 - a. Nutritional deficiency
 - b. Fetal oversize
 - c. Exhaustion of uterine muscle
 - d. Hormonal imbalance

- 38. Manual removal of the placenta is contraindicated in cows with elevated body temperature above
 - a. 101 degree F
 - b. 102 degree F
 - c. 103 degree F
 - d. Not contraindicated

- 39. If the placenta is not expelled in 12-24 hours an acute metritis may result and unless treated early or hysterectomy performed, it is usually fatal in

- a. 4 to 5 days
 - b. 1 to 2 days
 - c. 5 to 7 days
 - d. 1 to 2 weeks
- 40. Necrotic vaginitis and vulvitis is observed most often in
 - a. Mare
 - b. Sow
 - c. Bitch and queens
 - d. Dairy and beef heifers
 - 41. The symptoms of necrotic vaginitis are usually observed after how many days of parturition?
 - a. 1 to 4 days
 - b. Immediately after parturition
 - c. 4 to 7 days
 - d. After 1 week
 - 42. Almost all severe dystocia occurs in heifers with pelvic area of
 - a. 200 to 240 sq. cm.
 - b. 250 to 270 sq. cm.
 - c. 270 to 290 sq. cm.
 - d. 290 to 320 sq. cm.
 - 43. Clam shell forceps are used to relieve dystocia in

- a. Queen
 - b. Sow
 - c. Ewe
 - d. Bitch
- 44. The technique of epidural anesthesia was introduced by Benesch in
 - a. 1935
 - b. 1926
 - c. 1944
 - d. 1966
 - 45. In which animals partial embryotomy is often indicated before version is attempted in transverse ventral presentation
 - a. Cow
 - b. Mare
 - c. Sow
 - d. Ewe
 - 46. In which species abdominal contractions are so violent that if the fetus is in proper presentation, position and posture, forced extraction is seldom necessary?
 - a. Feline
 - b. Swine
 - c. Equine
 - d. Bovine

- 47. A complication of rather diffuse bleeding occurring from the submucosal area of the uterus after incising during cesarean section occurs in
 - a. Bovine
 - b. Equine
 - c. Swine
 - d. Feline
- 48. Transverse ventral presentation is most commonly observed in
 - a. Mare
 - b. Cow
 - c. Sow
 - d. Bitch
- 49. True fetal gigantism is seen most commonly in
 - a. Cow
 - b. Mare
 - c. Bitch
 - d. Sow
- 50. Schistosoma reflexus is seen in cow and occasionally in sheep, goat and pig but
 - a. Rarely in other species
 - b. Never in other species
 - c. Frequently in other species

d. Very common in other species

- 1. a
- 2. b
- 3. d
- 4. c
- 5. d
- 6. a
- 7. b
- 8. d
- 9. d
- 10. c
- 11. b
- 12. c
- 13. a
- 14. a
- 15. c
- 16. b
- 17. a
- 18. a
- 19. c
- 20. c
- 21. a
- 22. a
- 23. a
- 24. a
- 25. c
- 26. a

- 27. a
- 28. d
- 29. b
- 30. d
- 31. d
- 32. d
- 33. c
- 34. c
- 35. a
- 36. c
- 37. c
- 38. c
- 39. a
- 40. d
- 41. a
- 42. a
- 43. d
- 44. b
- 45. b
- 46. c
- 47. b
- 48. a
- 49. a
- 50. b

•Veterinary microbiology

- 1. Koch's postulates was derived by using which bacterium ?
- 2. Kanagawa reaction is exhibited by...
- 3. Father of Microbiology
- 4. In presence of specific antibody, Streptococcus pneumoniae shows --- reaction .
- 5. Father of Bacteriology
- 6. Small pox vaccine was developed by ---in the year1796.
- 7. A polymer of glycerol phosphate that is present only in G+ bacteria cell wall
- 8. Rabies vaccine was first done on
- 9. Loeffler and Frosch shares the credit of

discovery of---

10. The only anti TB drug that has the ability to destroy the acid fastness of Mycobacterium

11. The bacteria that is used to evaluate the phenol coefficient using Rideal Walker method

12. Mastitis causing *Str.agalactiae* and *Str. dysgalactiae* are classified as group -- and group-- respectively as per Lancefield classification.

13. The substance present normally in spores at high levels, but decreases during the favourable condition.

14. Greyish-white medusa head type of colony is shown by *Bacillus anthracis* in which medium ?

15. Chinese letter arrangement and metachromatin granules are features of ...

16. Agent that causes Summer Mastitis

17. Growth of *E.rhusiopathiae* is favoured by which aminoacid ?

18. Tuberculous lesions are prominent in digestive tract rather than in respiratory tract in ... ?

19. Etiological agent of Calf Diphtheria

20. Characteristic features of abortion in cattle caused by *B.abortus*

21. Type of vaccines used against brucellosis

in calves & cows.

22. Kennel Cough in dogs caused by ... ?

23. Pasteurella, Yersinia and Listeria have one thing in common as part of their staining character.

24. Etiological agent of fowl coryza

25. Classification of Pasteurella species ?

26. The best medium for an enhanced growth of campylobacter

27. In Mc Konkeys agar, E.coli produces ---- colonies whereas Salmonella produces --

28. Ringer and Gillespie medium is used for the growth of

29. 'Symptomatic anthrax is the synonym for....

30. Para anthrax in pigs is caused by

31. Giant cells of Langhans are absent in T.B affecting which species ?

32. In H&E staining T.B calcification appear as..... color.

33. Epitheloid cells fuse to form syncytia and it entersstage in Johne's diseases.

34. Among domestic species is most susceptible to anthrax.

35. Condition in sheeps under 1year of age, affected by Cl.septicum due to toxemia

36. Pulmonary Adenomatosis in sheeps by retrovirus is whereas Cl.botulinum type D

infection in cattle is

37. Dunkop and Dikkop are forms of

38. Diagnostic test for E.I.A

39. Inclusion bodies in Fowl pox is and in cow pox is.....

40. Instrument used to perform the Polymerase Chain Reaction

41. Ulcerative enteritis in poultry caused by

42. Infectious encephalomyelitis caused by Flavi virus transmitted by ixodes ricinus.

43. Granules present within the Guarnieri body.

44. Synonym for Infectious bulbar paralysis caused by Herpes.

45. Two medium used for the growth of mycoplasma.

46. In McFaydean reaction, color of organism and capsule ?

47. Bursitis in horse caused by Brucella abortus

48. The etiological agent of 'Struck' in sheep

49. Bottle brush appearance in Gelatin stab is growth feature of

50. Visna/Maedi in sheep is caused by.....

● SOLUTIONS :

1. Bacillus anthracis

2. Vibrio parahaemolyticum

3. Louis Pasteur
4. Quellung reaction
5. Robert Koch
6. Edward Jenner
7. Teichoic acid
8. Joseph Meister
9. FMD Virus
10. Isoniazid
11. Salmonella Typhi
12. B and C ; A is *S. pyogenes*
13. Calcium Dipicolinate
14. Nutrient Agar
15. Corynebacteria
16. *Corynebacteria pyogenes*
17. Tryptophan
18. Poultry
19. *Fusobacterium Necrophorus*
20. Necrotic placentitis and Leathery placenta
21. Strain 19 (living) and Strain 45/20(killed) respectively
22. *Bordetella bronchiseptica*
23. Bipolar staining
24. *Haemophilus gallinarum*
25. Robert's and Carter's serotyping
26. Thiol medium
27. Pink ; Colourless
28. *Leptospira*

29. Black Quarter
30. Clostridium septicum
31. Canines and Felines
32. Blue
33. Symp plasma
34. Sheep
35. Braxy or Bradsot
36. Jaagsiekte ; Lamsiekte
37. African Horse Sickness
38. Coggin's Test
39. Bollinger bodies ; Guarnieri bodies
40. Thermocycler
41. Clostridium colinum
42. Louping ill
43. Paschen's granules
44. Psuedorabies/Mad Itch/Aujezky's disease
45. PPLO Agar and Frey's medium
46. Blue ; Pink
47. Poll Evil and Fistulous Withers
48. Clostridium perferinges Type C
49. Erysipelothrix rhusiopathiae and Clostridium perferinges
50. Retro virus

- In Streptococci chain formation is due to the cocci dividing in _____Plane.
- Toxin is employed in diagnosis of Scarlet fever_____.
- Selective media for Streptococci is_____.
- Woman's curling hair type of growth is characteristic of _____.
- The extracellular toxins of *B. anthracis* are composed of _____, _____ and _____.
- In anthrax-affected animals the spleen revealed _____ consistency.
- _____ Phage is commonly used to identify anthrax bacillus.
- Lancefield classification is mainly based on antigen of the cell wall.
- The CAMP test is based on the partial haemolysis of the _____ toxin of Staphylococci.
- On Blood agar Staphylococcus releases V factor which favours the growth of _____ organism.
- All Clostridia are motile except _____ .
- All Clostridia are non capsulated except _____.
- Selective media for Clostridia is _____.
- Based on the growth in Robertson cooked

meat media Clostridia classified into _____ and _____.

- Western duck sickness is caused by _____.
- *Cl. botulinum* toxin produces characteristic _____ appearance in mice.
- Strangles is caused by _____.
- Botryomycosis in horse is caused by _____.
- *Staphylococcus hyicus* causes _____ in pigs.
- Selective media for staphylococci is _____.
- Clostridium species _____ and _____ produces stormy fermentation in litmus milk.
- Malignant odema in cattle is caused by _____.
- *Cl. chauvoei* type B causes _____ in cattle.
- Struck in sheep is caused by _____.
- *Cl. welchi* ferments lactose and produce acid clot in litmus milk is called as _____.
- Braxy in sheep is caused by _____.
- *Bacillus anthracis* capsule is rich in _____.
- Sudan Black B stain is commonly used to demonstrate _____ of *B. anthracis*.
- In gelatin stab growth of *B. anthracis* resembles _____ appearance.

- Clostridia produce acid and clot in _____medium.
- In gelatin stab culture, *Cl. tetani* produces _____ type of growth.
- Listeria exhibits characteristic _____ motility in 24hr broth culture, incubated at 25°C.
- The haemolysin of *L. monocytogenes* is known as _____.
- Neural form of listeriosis is called as _____.
- Listeriosis abortion typically occurs in _____ trimester of pregnancy.
- Isolation of listeria requires a process called _____.
- Swine erysipelas is caused by _____ .
- Luxuriant growth of *M. tuberculosis* on LJ medium is known as _____.
- The cell wall of the Mycobacteria composed of _____, _____ and _____ .
- Haematogenous spread of tubercle results _____ form of tuberculosis.
- Urticarial form of erysipelas infection in pig is called as_____.
- In gelatin stab culture *E. rhusiopathiae* gives _____ type of growth.
- Caseous lymphadenitis in sheep is caused by

- _____.
- To demonstrate Corynebacterium granules _____ and _____ stains are commonly used.
 - All Corynebacteria are Urease positive except _____.
 - Two pathogenic species of Nocardia are _____ and _____.
 - Bovine farcy is caused by _____.
 - The cell walls of Mycobacteria are rich in _____.
 - _____ is called as Timothy grass bacillus.
 - The acid-fast property of mycobacterium was discovered by _____.
 - **Write True or False**
 - Streptococci are catalase and oxidase negative.
 - The capsule of *Streptococci pyogenes* is made up of polysaccharide.
 - When Streptococci treated with penicillin, spheroplast form will occur.
 - Beta haemolytic Streptococci produce complete haemolysis.
 - Griffith typing of Streptococci is mainly based on agglutination test.
 - Staphylococci are not able to grow in the

media containing 7-10% NaCl.

- *S. aureus* strains from dogs produce golden yellow colonies on nutrient agar.
- Chemically the beta haemolysins of Staphylococci are phospholipase C.
- Gangrenous mastitis in cattle is mainly due to alpha toxin of staphylococci.
- Oxidase test is highly useful to differentiate Staphylococci and Streptococci.
- Clostridium are anaerobic, spore forming, spindle shaped bacteria.
- Clostridia are motile with monotrichous flagella.
- *Cl. odematiens* is very strict anaerobe.
- In Robertsons media proteolytic clostridium turns the meat pink colour and produce gas.
- Soil is the natural habitat of *Cl. tetani*.
- *Cl. tetani* is very potent invasive Clostridium.
- Capsulated *Cl. tetani* giving the characteristic drum sticks appearance.
- *Cl. tetani* is a non-capsulated and motile bacillus.
- Stiff agar (3%) is commonly used to demonstrate swarming nature of *Cl. tetani*.
- Streptolysin S is very potent cardiotoxic.
- Staphylococci are catalase +ve and oxidase

negative.

- *S. aureus* causes bumble foot in poultry.
- The word staphyle means twisted or coiled bacilli.
- Tick pyaemia in 2-4weeks old lambs is caused by *S. aureus*.
- Coagulative staphylococci are arranged in grapes like structure.
- *Cl. tetani* is saccharolytic.
- *Cl. tetani* spores are readily destroyed by 5% phenol or 0.1% mercuric chloride solution.
- *Cl. tetani* serological type VI possesses peritrichous flagella.
- Tetanolysin is a very potent neurotoxin.
- Poultry are highly susceptible to tetanospasmin.
- Ascending tetanus is more common in human and horses.
- The species *Cl. tetanomorphus* and *Cl. tetanoides* produces drumstick spores as like *Cl. tetani*.
- Administration of ATS within 4hrs of infection can prevent tetanus.
- Botulinum toxins are very potent enterotoxins.
- Botulism is mainly due to very rapid multiplication of bacteria at the site of

infection and production of toxin.

- Normal heat fixation of blood smears is sufficient to kill the *B. anthracis* bacilli.
- *B. anthracis* spores are readily destroyed by 5% phenol.
- In anthrax lethal toxin alone is responsible for production of local oedema and shock.
- Poultry are highly resistant to anthrax.
- Acute fatal form of anthrax is very common in pigs.
- The Sterne vaccine contained spores of a non-capsulated a virulent mutant strain of *B. anthracis*.
- Pulmonary anthrax is called as hide porter's disease.
- Anthracoids are motile, non-capsulated and non-spore formers.
- The edges of the colonies of *B. anthracis* appear irregular and are known as medusa head colonies.
- In bacillus, sporulation is inhibited by exposure to air.
- The spores of *Bacillus anthracis* are wider than the vegetative form.
- Bacillus species are catalase positive.
- Listeria is motile at 37°C.

- Listeria expresses flagellar protein only at higher temperature.
- *L. monocytogenes* does not grow in media with 10% salt concentration.
- **ANSWERS**
- 1 One or Single Plane
- 2 Erythrogenic
- 3 Edwards Medium
- 4 Bacillus anthracis
- 5 Edema Factor, Protective Antigen
& Lethal Factor
- 6 Black Cherry Jam
- 7 Cherry Gamma Phage
- 8 Carbohydrate Antigen or C-antigen
- 9 Beta
- 10 Haemophilus
- 11 Cl. perfringens
- 12 Cl. perfringens
- 13 Robertson's Cooked Meat Media
- 14 Saccharolytic & Proteolytic
- 15 Cl. botulinum
- 16 Wasp Waist
- 17 Streptococcus equi sub sps equi
- 18 Staphylococcus aureus
- 19 Exudative Epidermitis or Glassers
disease
- 20 Mannitol Salt Agar

21	<u>Cl. perfringens</u> , <u>Cl. septicum</u>
22	<u>Cl. septicum</u>
23	Black leg
24	<u>Cl. perfringens</u> type c
25	Stormy Clot Fermentation
26	<u>Cl. septicum</u>
27	Poly-D-glutamate
28	Spores
29	Inverted fir tree
30	Litmus Milk
31	Fir tree
32	Tumbling
33	Listeriolysin
34	Circling Disease
35	2 nd
36	Cold Enrichment
37	<u>Erysipelothrix rhusiopathiae</u>
38	Eugenic
39	Peptidoglycan, Arabinomannan, Mycolic acid
40	Milliary
41	Diamond Skin Disease
42	Bottle Brush Type
43	<u>Corynebacterium pseudotuberculosis</u>
44	Albert's neissers, ponder's stain
45	<u>Corynebacterium bovis</u>

46	<u><i>Nocardia steroids</i></u> , <u><i>Nocardia farcin</i></u> <u><i>ica</i></u>
47	<u><i>Nocardia farcinica</i></u>
48	Mycolic acids
49	<u><i>Mycobacterium phlei</i></u>
50	Ehrlich, 1882

- The most commonly used endospore stain- Schaeffer-Fulton stain
- • Capsule of *B. anthracis* is made of – D-glutamic acid
- • Teichoic acid in Gram-positive bacterial cell wall has- Glycerol/ribitol
- • Archaeobacterial cell walls usually consists of – Proteins and polysaccharides
- • Metachromatin granules serves as a reserve of – Inorganic phosphate
- • The chemi-osmotic mechanism of ATP synthesis proposed by- Peter Mitchell
- • Reducing media for anaerobic bacteria

contains- Na-Thioglycolate

- • Mycobacterium leprae is usually isolated in- Armadillos
- • Selective media for S.typhi is – Bismuth sulphite agar
- • Selective media for Staphylococcus aureus is- Mannitol Salt Agar
- • Paraffin and mineral oils are often sterilized by- Hot air oven
- • Sterilizing agent used in space crafts is- Ethylene oxide
- • Test used to find the carcinogenicity of mutagens is- Ames test
- • Three kingdom classification of bacteria proposed by- Carl Woere
- • Pyrogen induced by endotoxins is – IL-1
- • Lab test to detect the presence of endotoxins in preparations- Limulus assay
- • Resolving power of a compound microscope is – 0.2λ m

- • Heat resistance of spores is due to presence of – Dipicolinic acid
- • Target site of polymyxin is- Bacterial cell membrane
- • Thickness of Gram+ve and Gram-ve cell walls are- 20-80nm and 2-7nm respectively
- • Most abundant membrane protein of Gram-ve bacterial outer membrane- Braun's lipoprotein
- • Non-motile asexual sporangiospores of phycomycetes is – Aplanospores
- • Exogenously borne sexual spores are known as – Basidiospores
- • 'Pseudohyphae' is characteristic of – *Candida albicans*
- • 'North American blastomycosis' is caused by - *Blastomyces dermatitidis*
- • 'European blastomycosis' is caused by- *Cryptococcus neoformans*
- • Asexual spores produced by fragmentation of hyphae is – Arthrospore

- • Staining used for detection of fungi in pathological specimens- Periodic acid Schiff stain
- • Media used for stimulating production of chlamydospores of *C. albicans*- Corn meal agar.
- • Method used for observing the development of spores and hyphae of fungus is called- Block-slide culture technique.
- • *Mucor* is distinguished from other members of *Phycomycetes* by- Absence of rhizoids
- • Asexual spores of *Ascomycetes* are known as- Conidiospores
- • 'Bottle bacillus' is the synonym for- *Pityrosporum ovale* • 'Pseudoglanders' or 'Japanese Farcy' caused by *Histoplasma capsulatum*
- • 'Fluffy colonies' , 'Powdery colonies' and 'Lemon yellow colonies' are produced by- *Microsporum distortum* , *M. gypseum* and *M. canis* respectively.
- • Most potent toxin producing aflatoxicosis is

– B1

- • 'Facial eczema' in cattle is caused by - *Pithomyces chartarum*
- • "Farmer's Lung" is caused by *Micropolyspora faeni*
- • % of Agar used for the preparation of solid media is- 1.5%
- • Microbial population can be maintained in the exponential growth and at constant biomass for extended periods by using- Chemostat/Turbidostat
- • The phenomenon by which bacteria monitor their own population density through sensing the level of signal molecules- Quorum assay
- • Indicator bacterium used in autoclaving is- *Bacillus stearothermophilus* (spores)
- • The commonly used agent for 'cold sterilization' is - Gamma radiation
- • The disinfectant action of chlorine is due to the formation of- Hypochlorous acid
- • Linear chromosomal DNA is found in-

Borrelia burgdoferi

- • The topoisomerase that removes the supercoiling during replication- DNA gyrase.
- • The negative stain used in electron microscopy is – Phosphotungstic acid
- • Bacterium that exhibits directed swimming in response to Earth's magnetic field or to local magnetic fields- Aquaspirillum
- • The structure that remain after the treatment of a gram –ve bacteria with lysozyme/penicillin is – Spheroplast
- • An inorganic solidifying agent used for autotrophic bacteria- Silica gel
- • The procedure for staining the capsular material of B. anthracis is- MacFadyean reaction.
- • Botulism due to which type of toxin occurs in relation with phosphorous deficiency- Type D
- • Vole's Bacillus is the synonym for- Mycobacterium murinum

- • Specific media used for isolation of *M. bovis* is Stonebrink's medium containing Sodium pyruvate
- • 'Stormy clot' reaction is characteristic of- *Clostridium welchi*
- • The characteristic 'earthy odour' of the cultures is a feature of- *Psuedomonas psuedomallei*
- • 'Flying sea gull' appearance is characteristic of- *Campylobacter*
- • Vaginal mucus agglutination test in cattle is employed for the diagnosis of *Campylobacter* infection.
- • Rolling disease in mice is caused by- *Mycoplasma neurolyticum*.
- • Eaton's agent is the synonym of- *Mycoplasma pneumoniae*
- • Dick's test is used for the identification of- *Streptococcus pyogenes*
- • Chinese letter arrangement is seen for- *Corynebacterium*

- • Friedlander's bacillus is the synonym for *Klebsiella pneumoniae*
- • Weil-Felix reaction is used for diagnosis of Rickettsial infections using *Proteus vulgaris* X strain
- • Swarming growth and fishy odour of colonies is characteristic of- *Proteus vulgaris*
- • Kauffman-White scheme is used for serotypic differentiation of *Salmonella*
- • VR (Venkatraman-Ramakrishnan) medium is used as a transport media for *Vibrio cholerae*
- • 'Epidemic typhus' (Brill-Zinsser disease) is caused by *Rickettsia prowazaki*
- • 'Scrub typhus' is caused by *Rickettsia tsutsugamushi*
- • Rickettsial diseases that are not arthropod borne are Q-fever and Trench fever
-

• Veterinary pharmacology

- Plasma protein to which majority of drugs bind is ----
- ---- is the principal metabolic pathway for sulfonamide compounds
- Precursor of endogenous catecholamines in the body is----
- Drug of choice in acute anaphylactic shock is --
- OP compound that interact with both esteratic and anionic site of acetylcholine esterase is --
- A racemic mixture of d-hyoscyamine and l-hyoscyamine is ----
- What are soporifics?
- The term "Anaesthesia" was coined by --
- Precursor of serotonin is --
- What are endorphins?
- Species that require more amount of anaesthetics is---
- The avian species in which procaine is contraindicated is --
- In which breed of dogs thiobarbiturates are contraindicated?
- Paralysis of -- is a complication encountered in anaesthesia of Horse
- Which stage of anaesthesia is bypassed by

barbiturates?

- Laryngospasm during induction of anaesthesia is more common in ----
- Specific treatment for malignant hyperthermia in Pigs caused by halothane is--
- Oxidation of chloroform to phosgene can be prevented by adding --
- Barbiturates are derivatives of -----
- Oxytetracycline is obtained from -----
- ----- is a benzimidazole with antifungal property
- Primary mechanism of action of Mebendazole is inhibition of ---- by worms
- Wormicidal drug that can be given as immunomodulator at lower doses is ----
- Two chemical components seen in Ivermectin are -- and ----
- Drug active against immature stages of *Fasciola hepatica* is -----
- Antidote for Cyanide poisoning was discovered by ----
- Organochlorine compound which does not accumulate in the body is -----
- The enzyme in haeme synthesis which is inhibited by lead poisoning is ----
- *Conium maculatum* is better known as ----

- Dose of BAL in Arsenic poisoning in Large animals is -----
- ----- is the metabolic product of Procaine
- Give an example of a specific COX-2 inhibitor
- Old Hen Test is used to detect ----- potential of Organophosphate compounds
- ----- is a type of retinal degeneration caused by Bracken Fern Poisoning
- The specific antidote for Copper poisoning is -----
- Violent Dyspnoea "Thumping" is seen in pigs as a result of -----
- Animal species to which Benzene Hexa Chloride is highly toxic is ----
- Highly potent Organophosphorous compound is ----
- The synergists that is added to pyrethroid compounds in order to enhance its effect is --
- What are Burton's Lines?
- Specific antidote for Nitrate poisoning is -----
- Gentamicin, the aminoglycoside drug is obtained from ----
- The Fungal toxin that causes reproductive problems in sows is ----

- The anti BP drug Atenolol belongs to which group of Antiarrhythmic Agents ?
- Most potent H₂ Blocker is ----
- Most potent Local anaesthetic is---
- What does " Utectic Mixture " contain?
- The most potent of all the Aflatoxins is--
- Father of Pharmacology is --
- Isoniazid and Ethambutol are the drugs used in the treatment of ----

- **Solutions**

- albumin
- Acetylation
- phenylalanine
- epinephrine
- Echothiophate
- Atropine
- sleep inducers
- Oliver Wendell Holmes
- Tryptophan
- Endogenous analgesics
- Horse
- Parakeet
- Grey Hounds
- facial nerve
- Stage 2
- cats

- Dantrolene
- 1% ethanol
- Malonyl Urea
- *Streptomyces rimosus*
- Thiabendazole
- Glucose uptake
- Levamisole
- B_{1a} and B_{1b}
- Diamfenetide
- K K Chen
- Endosulfan
- Aminolevulinic acid dehydratase
- Hemlock
- 3mg/kg @ 4hr interval deep i/m
- PABA
- Cefocoxib
- Organo Phosphorous Induced Delayed Neurotoxicity
- Bright blindness
- D-penicillamine
- Gossypol poisoning
- cat
- Parathion
- Piperonyl Butoxide
- Blue line in gums in lead poisoning

- Methylene Blue
- *Micromonosporum purpureum*
- Zearalenone
- Class 2
- Famotidine
- Bupivacaine
- Prilocaine and Lidocaine
- B₁
- Rudolf Bucheim
- Tuberculosis

• Veterinary parasitology

- Enzymes involved in hatching of Ascarid egg: Chitinase and esterases
- McLean counting system is devised for : *Ascaris suum*
- An ascarid without somatic migration: *Toxascaris leonina* (*A. galli* belongs to Family heterakidae)
- Herring worm: Anisakis
- Cod fish worm: *Phoconema*
- Hourglass shaped esophagus in : *Oxyuris equi*

- Hourglass shaped buccal capsule found in : *Oxyuris equi*
- Funnel shaped pharynx: *Haemonchus contortus*
- Cup shaped buccal capsule with cusp shaped teeth: *Stephanurus dentatus*
- Parasite responsible for “ungroomed rat tail appearance” in horse: *Oxyuris equi*
- Caecal worm of poultry: *Heterakis gallinae*
- Nematodes with “H” shaped excretory system: Rhabditidae
- Characteristic “ear” shaped (dorsal) tooth in : *Strongylus vulgaris*
- “Morocco leather” appearance associated with: *Ostertagia ostertagi*
- “Ring worm like lesions” associated with: *Trichostrongylus* spp
- “Horse shoe” shaped ovary: *Echinococcus granulosus*
- “Boot” shaped spicule: *Dictyocaulus filariae*
- “Heart” shaped spicule: *Nematodirus battus*
- “Lancet” shaped spicule: *Nematodirus fillicolis*
- “Spoon” shaped spicule: *Nematodirus spathiger*
- “Y” shaped dorsal ray: *Haemonchus contortus*

- Recurved spicules: *Gaigeria pachyscelis*
- No spicule: *Trichinella spiralis*
- Black scours worm: *Trichostrongylus colubriformis*
- Barber's pole worm/ wire worm/ large stomach worm/ twisted stomach worm: *Haemonchus contortus*
- Eyeworm of poultry: *Oxyspirura mansoni*
- Brown stomach worm: *Ostertagia ostertagi*
- Red stomach worm of pig: *Hyostromylus rubidus*
- Fox hook worm: *Uncinaria stenocephala*
- Pig hook worm: *Globocephalus* (*G. urosulatus*, *G. longimucornatus*)
- Elephant hook worm: *Barthomostomus* (*B. sangeri*), *Grammocephalus*
- *clatheratus*
- Lungworm of dog: *Filaroides osleri*
- Lungworm of cat: *Aleurostrongylus* spp
- Lungworm of rat: *Angiostrongylus cantonensis*- causes "eosinophilic meningio encephalitis" in man
- Eddy worm: Class Turbellaria
- Larva with "S" shaped tail: *Filaroides osleri*
- Nurse cells characteristic of *Trichinella spiralis*

- “Stichosomes” are characteristic of: Trichurid esophagus
- “Cordons” in: Ascaridae
- “Bosses” in: Gongylonema
- Cuticle extended posteriorly beyond the tail of worm: Physaloptera spp
- Bursa strengthened with chitinous plate: Protostrongylus spp
- L1 with characteristic cuticular knob: *Dictyocaulus filariae*
- L1 with button hook tail: *Dipetelonema dracunculoides*
- Anterior helmet seen in: *Dracunculus medenensis*
- Definitive host of *Dioctophyma renale*: mink
- The dish “Fessikhs” is associated with: *Heterophyses heterophyses*
- The dish “Marrara” is associated with: Sparganosis
- Phenomenon of “progenesis” is associated with: Family Plagiorchiidae
- “Furcocercus cercaria”: Schistosomes
- “Microcercus cercaria”: Paragonimidae
- “Xiphido cercaria”: *Dicrocoelium dendriticum*
- Radia with “procruscula”: Fasciola spp
- Nematodes with flame cells: Class

- Acanthocephala (*Macracanthorhynchus*
- *hirudinaceus*)
 - Halzoun syndrome associated with:
Fasciolosis and spirometrosis
 - Cestode with “sickle” shaped hooks: *Taenia* spp
 - Cestode with “rosethorn” shaped hooks: *Dipylidium caninum*
 - Cestode with “Hammer” shaped hooks: *Davinia* spp
 - Cestode with “bunch of grape” ovary: *Dipylidium caninum*
 - Metacestode tetrathyridium is seen in: Family Mesocestoides
 - Metacestode strobilocercus seen in: *Taenia taeniformis* (as *Cysticercus fasciolaris*)
 - “Lapets” present in: *Anoplocephala perfoliata*
 - “Dumbbell” shaped uterus: *Stilasia hepatica*
 - Fringed tape worm: *Thysanosoma actinoides*
 - Gravid uterus is replaced by egg capsule in: Family Linstowiidae
 - Cooked rice grain appearance: *monezia* gravid segments
 - Cucumber shaped segments: gravid segments of *Dipylidium caninum*

- Following diseases/conditions are associated with
- Milk spots: *Ascaris suum*
- Balling up in horse: *Parascaris equorum*
- Mud colour faeces: *Toxocara vitulorum*
- Rat tail appearance: *Oxyuris equi*
- Black head: *Heterakis gallinae* (Egg carrier of *Histomonas meleagridis*)
- Parasitic otitis: *Rabditis bovis*
- Black scours: Trichostrongylus worms
- Villous atrophy: Trichostrongylus and Nematodirus
- Ringworm lesions: Trichostrongylus
- Morocco leather: *Ostertagia ostertagi*
- Pulpy kidney disease (with *Cl. welchi*): nematodirus
- Swimmer's itch: *Schistosoma* spp (non human)
- Foot rot in sheep: *Strongyloides papillosus*
- Pimply gut: *Oesophagostomum* spp
- Colic in horse: *Cyathostomum tetracanthum*
- Haemorrhagic warts (in tracheal bifurcation): *Filaroides osleri*
- Fistulous wither: *Onchocerca cervicalis*
- Eosinophilic meningo encephalitis in man: *Angiostrongylus cantonensis*

- Wahi /kaseri/ summer mange: *Onchocerca* spp
- Bursati / granular dermatitis/ summer sore: *Habronema* (cutaneous habronemiasis)
- Arteritis in horse: strongylidae family
- Oesophageal tumour: *Spirocerca lupi*
- Gastric tumour: *Gnathostoma spinigerum* and *Habronema megastoma* (*Draschia megastoma*)
- Cholangiocarcinoma: *Clonorchis sinensis* (oriental liver fluke/Chinese liver fluke)
- Urinary bladder carcinoma: *Schistosoma haematobium*
- “Swine fever” and epizootic pneumonia: *Metastongylus* spp
- Husk or hoose: *Dictyocaulus viviparus*
- Enzootic cerebrospinal nematodiasis: *Setaria digitata*
- Hump sore: *Stephanofilaria assamensis*
- Ear sore: *Stephanofilaria zaheeri*
- Fatal hemorrhagic enteritis in mink: *Euryhalmis squamula*
- Rot dropsy: *Fasciola* spp
- Snoring in cattle: *Schistosoma nasalis*
- Nodular taeniasis in poultry: *Reilettina echinobothrida*

- Hepatitis cysticercosa: *Cysticercus tenuicollis*
- Gid/Staggers: *Coenurus cerebralis* (of *Taenia multiceps*)
- False gid: *Oestrus ovis* (larva)
- Macrocytic / pernicious anemia: *Diphyllobothrium latum*
- LD bodies: Leishmaniosis
- KB bodies: Theileriosis
- Visceral Leishmaniosis: *Leishmania donovani*, *L. chagasi*, *L. infantum*
- PKDL: *L. donovani*
- Kala azar: *L. donovani*
- American kala azar: *L. chagasi*
- Rural zoonotic leishmaniasis: *L. major*
- Chiclero ulcer/ bay sore: *L. mexicana mexicana*
- Classical espundya: *L. braziliensis braziliensis*
- Uta: *L. peruviana*
- Nagana: *Trypanosoma brucei*, *T. congolensi*, *T. vivax*
- Souma: *T. vivax* in cattle
- African sleeping sickness: *T. brucei gambiensi*, *T. brucei rhodasiensi*
- Surra: *T. evansi*
- Tibarsa /Gufar: *T. evansi* in camel
- Mal de Cadares: *T. equinum*

- Dourine / equine syphilis: *T. equiperdum*
- Dollar spots: *T. equiperdum*
- Yellow buttons: *Trichomonas gallinae* (Avian trichomonosis)
- Saucer shaped ulcer in tissue: *Histomonas meleagridis*
- Sulphur yellow faeces: *Histomonas meleagridis*
- Travellers diarrhea: *Giardia lamblia*
- Flask shaped ulcer: *Entamoeba histolytica* (in intestine)
- Red dysentery: *Eimeria zuernii* in cattle
- Rectal coccidiosis: *Eimeria burnetti*
- Ladder lesions in duodenum: *Eimeria acervulina*
- Signet ring: Plasmodium spp
- Texas fever/Red water fever/Bovine pyroplasmiasis: Babesia spp in cattle
- Equine biliary fever: *Babesia equi* (now as *Theileria equi*)
- Tropical bovine theileriosis: *Theileria annulata*
- Benign tropical theileriosis: *T. mutans*
- East coast fever/ January disease: *T. parva*
- Buffalo disease/Corridor disease: *T. lawrensi*
- Malignant theileriosis: *T. hirci*
- Gall sickness: *Anaplasma marginale*

• Veterinary gynaecology

- 1. Desirable concentration of actively motile spermatozoa per dose of frozen bull semen.
- 2. Commonly used model of AV for bulls.
- 3. Temperature time protocol needed for destroying spermicidal factor in milk.
- 4. Spermicidal factor present in fresh milk.
- 5. Volume of semen dependent upon the secretions from seminal vesicles.
- 6. ---present in goat seminal plasma causes coagulation when sodium citrate is added.
- 7. Freezing point depression of bull semen
- 8. Dose of penicillin G sodium per ml of extended semen.
- 9. Distance between grill and straw rack during semen freezing
- 10. Which is better ? rapid / slow freezing.
- 11. Dose of dihydrostreptomycin sulphate per ml in extended semen.
- 12. ----ovary is physiologically more

active.

13. Shape of non-pregnant uterus in mare

14. Urethral glands are found in ?

15. Fructose and citric acid are secreted from which accessory gland.

16. High content of ergothionine and inositol in vesicular glands is characteristics of which species .

17. Nerve supplying sensory fibres to vagina , vulva and clitoris.

18. Sex cords of female are called-----

19. In females -- ducts develop into gonadal system while in male---ducts develop.

20. Vestibule arises from-----

21. The endocrine cells of ovary originate from-----

22. Oocytes surrounded by one layer of flattened cells ----

23. Ovulation generally occurs in response to ----

24. Follicular development is enhanced / suppressed in ovary containing corpus luteum

25. Second polar body is formed at the time of ----

26. At ovulation ova of cattle, sheep and swine contain ---- polar body.

27. At ovulation ova of horse, dog and fox are

in -----division.

28. At ovulation the oocyte liberated in cattle is -----

29. At ovulation the oocyte liberated in equines is -----

30. Primary spermatocyte gives rise to -----
- spermatozoa.

31. Primary oocyte gives rise to ----- egg.

32. The regression of corpus lutea begins by day ----- in cattle.

33. Mature corpus luteum is smaller than mature graffian follicle in the -----.

34. Corpus luteum lysis is ----- induced in cattle and sheep.

35. Intrauterine injection of ----- blocks estrogen induced corpus luteum lysis in cattle

36. The functional segments of oviduct

37. PGE3 has a ----- effect on oviduct .

38. Uterus of cow, ewe and mare is -----

39. Uterus of sow is -----

40. Oviduct is supplied blood by -----

41. Blastokinin, a protein which influences blastocyst formation is secreted by uterus of -----

42. Fern pattern of cervical mucus is associated with high ----- content.

43. pH of vaginal secretion is favourable /

unfavourable to spermatozoa ?

44. Gartner's ducts are remnants of -----

45. Depleted secretory cells of oviductal musculature

46. Cervix possesses / does not possess glands ?

47. FSH and LH are chemically -----

48. ----- causes crop milk production in pigeons.

49. The long half life of PMSG is due to -----

50. PMSG is formed by endometrial cups which are of ----- origin.

• ANSWERS

1. 10-15 million

2. Danish

3. 92-95°C for 10-12 minutes

4. Lactanin

5. Seminal vesicles

6. Lyso lecithin

7. - 0.55°C

8. 500-1000 IU

9. 4 cm

10. Rapid

11. 500-1000µg

12. Right

13. Cruciform

14. Man

15. Seminal vesicles
16. Boar
17. Pudic
18. Medullary cords
19. Mullerian, Wolffian
20. Urogenital sinus
21. Ovarian medulla
22. Primordial cells
23. LH surge
24. Enhanced
25. Fertilization
26. One
27. First maturation
28. Secondary
29. Primary
30. Four
31. One
32. 15-16
33. Mare
34. Estrogen
35. Indomethacin
36. Fimbriae, Infundibulum, Ampulla, Isthmus
37. Relaxing
38. Bipartite
39. Bicornuate
40. Utero ovarian
41. Rabbits

- 42. Chloride
- 43. Unfavourable
- 44. Wolffian duct
- 45. Peg cells
- 46. Does not possess
- 47. Glycoproteins
- 48. Prolactin
- 49. Sialic acid
- 50. Foetal origin

- 1. Animal showing external evidence of pro-oestrus with vulval oedema, hyperemia & sanguinous vulval discharge is
a) Cattle b) Bitch c) Doe d) Ewe and Mare
- 2. Mammary gland duct system growth is under the influence of
a) Estrogen b) Progesterone c) Prolactin d) Prostaglandins
- 3. Mammary gland alveolar growth is under the influence of
a) Estrogen b) Progesterone c) Prolactin d) Prostaglandins
- 4. Exogenous oxytocin has luteolytic action in

a) Bitch b) Cow & Ewe c) Cattle & Sow d) cow & Doe

- 5. Upto secondary spermatocyte stage ———— hormone acts, after which testosterone regulates spermatogenesis
a) Growth hormone b) F.S.H c) I.C.S.H d) Insulin e) Androgens
- 6. In birds & reptiles, ———— is important in contraction of shell glands & vagina to induce oviposition
a) Oxytocin only b) F.S.H & L.H c) Prolactin & vasopressin d) vasotocin
- 7. Predominate Ig in follicular fluid is ———
a) Ig A b) Ig M c) Ig G d) Ig E
- 8. One primary spermatocyte produces ————
a) 4 Spermatids b) 64 Spermatids c) 1 Spermatid d) 16 Spermatids
- 9. One spermatogonia produces ———— spermatids
a) 4 b) 1 c) 64 d) 16
- 10. B-Spermatogonia is formed after ———— stage
a) A 4 b) Intermediate spermatogonia
c) Primary spermatocyte d) Secondary

Spermatocyte

- 11. 4 – Cell stage embryo is transported from site of fertilization to uterus in
a) Sow b) Mare c) Ewe d) Cattle
- 12. Transuterine migration of embryo is absent in ---
a) Bitch b) Cattle c) Sow d) Both a and c
- 13. Maternal Recognition of Pregnancy (M.R.P) is responsible for
a) Fetal growth b) Implantation c) Maternal circulation d) Fertilization e) Parturition
- 14. First maturation division / meiotic division is not completed at the time of ovulation in
a) Sow b) Cattle & Buffalo c) Ewe & Doe d) Mare & Bitch
- 15. Hippomanes are usually found in ----
a) Yolk sac b) Amniotic fluid c) Allantoic fluid d) All of these
- 16. Steroid hormones have receptors in ----
a) Cytoplasm b) Nucleus c) Cell membrane d) Both a & c
- 17. An anabolic hormone ----
a) Insulin b) Estrogen c) Testosterone d) All of

these

- 18. An animal in which pheromones are secreted in saliva foam
a) Boar b) Bull c) Stallion d) Ram
- 19. In the testes , testosterone secreting cells are -----
a) Germinal epithelium b) Leydig cells c) Sertoli cells d) Blood testes barrier
- 20. First scientific research in A.I in domestic animals was conducted by Italian physiologist ----- in 1780.
a) Leeuwenhoek b) G. Amantea c) L. Spallanzani d) Rapiquet
- 21. ----- (1963) developed special cotton plug consisted of polyvinyl alcohol powder for sealing straws.
a) Sorenson b) Nishikawa c) Van Demark d) Cassou
- ANSWERS:
1 b ; 2 a ; 3 b ; 4 d ; 5 b ; 6 d ; 7 c ; 8 a ; 9 c ; 10 b ; 11 a ; 12 b ; 13 b ; 14 d ; 15 c ; 16 a ; 17 d ; 18 a ; 19 b ; 20 c ; 21 d
- B. FILL IN THE BLANKS

- 1) Acrosome reaction is an indicator of completed-----
- 2) Polyspermy is common in----and-----
- 3) The C.L persists through out pregnancy in all farm animals except-----
- 4) Endometrial cups are a unique feature of ----- placenta which secrete----- hormone.
- 5) ---- is the major metabolic fuel for foetus
- 6) Although ---- comprise 70-80% of sugar in fetal ungulates (sheep, goat, cattle) and does not cross placental barrier.
- 7) Fetal cortisol act on placenta to induce ----- enzyme which convert progesterone to estrogen to have role in parturition.
- 8) Lochia , the post partum uterine discharge is also known as ---- or -----
- 9) Rate of ovulation is more in ----- ovary of cattle but ----- in mare
- 10) Glans penis is absent in -----(species)
- 11) ---- twins are much more common than ---- twins
- 12) Doddlers are due to a pair of autosomal recessive genes causing ----- or other-----
- 13) Congenital valvular defects are common in ----- (species)
- 14) Super fecundation is more common in

15) Scrotum of domestic animals is located between a thigh except ----- and----- in which scrotum is located caudal to thighs.

16) Boars masturbate by inserting their penis inside the preputial diverticulum & ejaculate , the condition is termed as -----

17) Masturbation in animals is also termed as-----

18) Young boars in artificial insemination studs are separated to prevent -----

19) Paralysis and paraphimosis of penis is seen bulls diseased with----- & in horses in late stage of -- -- (Disease)

20) Inguinal hernia is considered a common breeding defect in -- & -- (Species)

21) The hormone produced by Sertoli cells in male & granulosa cells in female is--

22) The enzyme involved in melatonin synthesis & found only in Pineal gland is -----

23) ----- (1951) reported the birth of first calf from insemination with frozen semen in cooperation with Polge & Smith.

24) ----- (1955), first time used pellets as packaging material.

25) Macpherson , Van Demark & Kinnoy (1954)

developed freezing of semen in

---(Packaging material)

26) Egg yolk coagulating enzyme (EYCE) / Coagulase / phospholipase /Tricyl glycerol lipase is found in bulbourethral secretion of --- semen, which interacts with milk constituents in milk diluents & inhibit motility of spermatozoa.

27) ----- is the most commonly used cryoprotectant for freezing of semen.

28) ----- (1948) in Denmark for the first time used large sized straws made of polyvinyl chloride.

- ANSWERS:

- 1) Capacitation
- 2) Birds & Reptiles
- 3) Mare
- 4) Equine , PMSG / eCG
- 5) Glucose
- 6) Fructose
- 7) 17- α - hydroxylase
- 8) Secundus , Second cleansing
- 9) Right , opposite
- 10) Tom (Male Cat)
- 11) Dizygotic , monozygotic
- 12) Cerebellar , brain stem lesions

- 13) Horses
- 14) Multipara (Dog & Cat)
- 15) Boar , Tom (Male Cat)
- 16) "Balling Up"
- 17) Onanism
- 18) Pedarasty (Rectal Copulation)
- 19) Rabies , Dourine
- 20) Horse , Pig
- 21) Inhibin
- 22) HIOMT(Hydroxy Indole -O- Methyl Transferase)
- 23) Stewart
- 24) Perks
- 25) Glass Ampule
- 26) Buck
- 27) Glycerol
- 28) Sorenson

- C. MATCH THE FOLLOWING

- 1)

- | | |
|---|----------|
| A. Homosexual behaviour -- | 1. Cat |
| B. Frequent urination in heat ---
Buffalo | 2. |
| C. I.V.R.I Crystoscope ---
Embryonic Mortality | 3. Early |
| D. Irregular long estrous cycle --
White Side Test | 4. |

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

- 2) 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

- 3) 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
-
- 4) 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
-
- 5) 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 like consistency --- 4. Liver fluke
 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
- 6) 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
- 7) 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, 2

- ANSWERS:

1 d

2 c

3 a

4 b

5 c

6 a

7 d

- 1. Unfertilized ovum remains for months in the oviduct of ---species
 - a) sow b) mare c) ewe and doe d) bitch
- 2. In sows, maternal recognition of pregnancy is mainly due to the action of
 - a) Interferon tau b) Oxytocin c) Estrogen d)

Prostaglandins

3. * Ovulation of "primary oocyte" occurs in
 - a) mare and bitch
 - b) sow
 - c) cow and doe
 - d) all of the above
4. Centric type of nidation or implantation occurs in
 - a) rodents
 - b) primates
 - c) ruminants
 - d) none of the above
5. Chemical structure of GnRH, a decapeptide, was determined by
 - a) Green and Harris
 - b) Cole and Hart
 - c) Gorski
 - d) Shalley and Guellemin
6. Endometrial cups are formed from
 - a) chorionic girdle (fetal origin)
 - b) maternal caruncles
 - c) endometrium (maternal origin)
 - d) none of the above
7. In sow, the villi near the endometrial glands are enlarged and specialized to form structures called
 - a) Hippomanes
 - b) amniotic plaques
 - c) areolae
 - d) placentomes
8. Most of the developmental anomalies occur during
 - a) period of embryo
 - b) period of ovum
 - c) period of fetus
 - d) during birth
9. Low land abortion or Marsh land abortion is due to

a) Fescue poisoning b) Leptospirosis c) nitrate poisoning d) None of the above

10. Transformation of secondary spermatocytes to spermatids

a) spermatocytogenesis b) spermateliosis c) spermiogenesis d) spermiation

11. Attachment of sperm to the ovum occurs initially at ---segment of sperm head

a) apical b) post-acrosomal c) principal d) equatorial

12. Diffuse arm like structure of microtubules in the sperm tail are made of proteins

a) flactin b) tubulin c) spermosin d) dynein

13. In boars, seminal vesicles produces ---- which acts as chief osmotic pressure regulator in the semen

a) ergothionine b) citrate c) inositol d) fructose

14. **pH of TRIS extender is

a) slightly acidic b) slightly alkaline c) neutral d) alkaline

ANSWERS:

1 b ; 2 c ; 3 a ; 4 c ; 5 d ; 6 a ; 7 c ; 8 a ; 9 c ; 10 b ; 11 d ; 12 d ; 13 c ; 14 a

• * ovulation of secondary oocyte in other species

• ** pH 6.8

• B. FILL IN THE BLANKS

- 1) Ovary of mare is ———-shaped
- 2) Cervix is poorly defined in ————-species
- 3) Progesterone concentration at oestrus fluctuates below———ng/ml
- 4) Irregular long oestrous cycles are mainly due to ————-
- 5) In———-species, ovulation occurs in metoestrus
- 6) *PgF2 α has local effect on ovary in all species except———-
- 7) Fertile life span of stallion spermatozoa———-
- 8) Abnormal fertilization in which only male pronucleus develops——
- 9) In rabbits, ——-substance plays role in embryonic nutrition
- 10) ——-is a polypeptide hormone produced by ovary
- 11) hCG is produced by ———-cells of the placenta
- 12) **Number of carbon atoms in estrogen———-
- 13) ———- is a unique species in which epididymis can produce testosterone
- 14) Ultrasonography for pregnancy diagnosis is based on ——-phenomenon
- 15) Maintenance of CL and Progesterone from

CL are necessary throughout the gestation in

16) In cows, metoestral bleeding is associated with withdrawal of --- hormone

17) Fertile life of ova in bitch -----

18) Shape of CL in mare-----

19) Cystic follicles are common in----

20) Potato soup pyometra or post service pyometra is characteristic of ----infection

21) Failure to expel the second polar body resulting in triploid zygote ----

22) ***In cow, mare and ewe, new CL is refractory for --days of ovulation

23) Antimicrobial constituent of semen

24) Sigmoid flexure is pre-scrotal in ---sp.

25) In Yolkmedia for buck semen, seminal plasma must be removed to prevent yolk coagulation due to the action of --

26) Generally semen of --sp. doesn't respond to freezing

27) From oogenesis onwards diplotene nucleus of oocyte remains in resting stage called--

28) Growth of follicle upto the stage of antrum is -----

29) The cell layer of trophoectoderm covering the inner cellmass---

- 30) Split oestrus is common in -----
- 31) Percentage of spermatozoa in semen -----
- 32) ----- is the most important maternal cause of dystocia in ewe
- 33) ----- is the most important maternal cause of dystocia in sow
- 34) First successful embryo transfer in cow was done by.....
- 35) -----ions are necessary for optimum sperm motility
- 36) Most important spermicidal heavy metals.....
- 37) Normal fructolysis index of semen ranges from-----
- 38) -----cells in are more common in severe testicular hypoplasia
- 39) Sperm specific LDH localized in midpiece
- 40) Glyceryl phosphoryl choline, carnitine and sialic acid in semen are secreted from---
- 41) Dag defect is more common in ---sp. and is associated with high level of-----metal
- 42) Optimum temperature for preservation of boar semen is-----
- 43) ---percentage of sodium citrate dehydrate is isotonic to semen
- 44) First A.I was done by --- in beagle bitch

- 45) First A.I in India was done by---in Mysore Palace Dairy farm
- 46) Osmotic pressure of semen ranges from-----
- 47) Examples for penetrating or intracellular cryoprotectants are---
- 48) Examples for non-penetrating or extracellular cryoprotectants are---
- 49) ---gland is the source of antiagglutinin in sperm
- 50) Semen freezes at ---temperature
- 51) Level of ascorbic acid in semen-----
- 52) Trichomonas abortion is more common in ---trimester of pregnancy
- 53) ---is the most widely used extender for frozen semen
- 54) High catalase activity, reduced fructose and high pH in semen are indicative of ---
- 55) ----is a β -blocking agent used to shorten parturition
- 56) ----is a β -adrenergic agent used to delay parturition

● ANSWERS:

- 1) Kidney shaped
- 2) bitch
- 3) 1 ng/ml
- 4) early embryonic mortality

- 5) cattle and buffaloes
- 6) Mare (*In mare, PgF2 α has systemic action)
- 7) 70 to 120 hours
- 8) androgenesis
- 9) Blastokinin or uteroglobulin
- 10) relaxin
- 11) syncytiotrophoblastic cells
- 12) 18 carbon atoms (**Testosterone-19C steroid and progesterone-21C steroid)
- 13) stallion
- 14) Doppler phenomenon
- 15) swine
- 16) estrogen
- 17) 4 to 8 days
- 18) cauliflower shaped
- 19) sow
- 20) Trichomonas infection
- 21) polygyny
- 22) 3 to 5 days (***) 11 to 12 days in sow)
- 23) seminal plasmin
- 24) boar
- 25) phospholipase or triacyl glycerol lipase
- 26) Boar semen
- 27) Dictyate stage
- 28) Gonadotropin independent
- 29) Rauber cells
- 30) Mare

- 31) 10%
- 32) ring womb
- 33) uterine inertia
- 34) Willet in 1951
- 35) Potassium
- 36) Cu and Fe
- 37) 1.4 to 2 mg/hr
- 38) medussa cells and giant cells
- 39) LDH-X
- 40) Epididymis
- 41) Danish Jersey, Zn
- 42) 15 to 18°C
- 43) 2.94%
- 44) Lazzaro Spallanzani
- 45) Dr.Sampathkumaran
- 46) 280 to 300 milliOsmol
- 47) Glyserol, DMSO and Ethylene glycol
- 48) Raffinose, sucrose, PVP and glycine
- 49) Prostate
- 50) -0.53°C
- 51) 3 to 8 mg/ 100ml
- 52) first trimester
- 53) Yolk citrate
- 54) Seminal vesiculitis
- 55) Carazolol
- 56) clenbuterol

• Animal physiology

- 1. Rumen gas largely consists of Carbon dioxide and methane in the proportion of
- 2. Urea is recycled in the rumen throughand
- 3. If acetic : propionic ratio in the rumen goes down below the fat content decreases in the cow milk
- 4. The pH of ileal fluid ranges fromto
- 5. The rumen protozoa store carbohydrate in the form of
- 6. The testosterone released from tunica interna is converted to estradiol, a female sex hormone under the influence of
- 7. The estrogen produced by mammalian ovary or placenta normally are,and
- 8. In ruminants, the placenta is of type
- 9. Grayish coloured corpus luteum present in

- (species)
10. PRL (prolactin) promote the secretion of progesterone by the corpora lutea inand(species)
11. Bruce effect in mice involve blockage ofsecretion which is necessary for maintenance of CL
12. the blood supply to udder is maintained byartery
13.is the main source of energy in bull semen
14. Collapse of alveoli is known as
15. one gram of hemoglobin can bind with maximum ofml oxygen
16. Expiration if regulated bycentre of the brain
17. Rate of diffusion of carbon dioxide through respiratory membrane is abouttimes rapid than oxygen diffusion
18. The volume of air which remains in the lungs after forceful expiration is called
19. Threshold level for low oxygen in air for sheep, goat and cattle is aboutmeters above sea level
20. The critical environmental temperature at which the increase in respiration rate become

marked is 60°F for HF, 70°F for Jersey andfor Brahman cattle

21. The most potent compound which can stimulate the closure of esophageal/reticular groove in cattle even up to two years of age is.....

22.....is the usual order of concentration of individual acids present in the rumen

23. Enzymes responsible for metabolism are located in the(part) of spermatozoa

24. The estrous cycle of ewe is ofdays duration

25. The bull spermatozoa can travelcms per 30 minutes in the female genital tract

26. Sexual receptivity in case of ewe in heat requires the presence of.....(hormone)

27.....% of carbon dioxide transport occur in the form of Bicarbonate ion

28. Utilization coefficient for oxygen consumption is.....% for birds and%for mammals

29. The nerve network Meissners plexus controls secretions of epithelial cell where as

- Auerbachs plexus control
30. Coiled colon (Ansa Spiralis) present inand.....(species)
31. In GI system, contractile waves that travel short distance is termed as.....and that travel longer distance is.....
32. Daily production of saliva in cows comes aroundlitres
33. The first hormone ever discovered was
34. Horse obtains around% of its energy requirements from large intestinal absorption of volatile fatty acids
35. Protozoan count of rumen is aboutml of rumen content and it account for% of rumen metabolism
36.hormone induces gene expression in mammary tissue for casein synthesis
37. Herbivores do not have phase of gastric stimulation
38.part of female reproductive tract is known as "neck of the womb"
39. Central frozen semen production and training institute is located at
40. Credit of first birth of a buffalo calf through AI in India goes to.....institute

41. Electro ejaculation was first adopted by
42.hormone is very important for the duct growth of mammary gland
43. The lactose content in milk is% and is the most consistent component of milk
44. It is estimated that aboutml of blood must pass through udder for the production of one ml of milk
45. As per work physiology, contraction of(visceral organ) increase no of erythrocyte in the body.
46. Exercise result in increased cardiac output to meet the increased demand of working muscles for oxygen. The cardiac output =stroke volume X
47. During strenuous exercise, cardiac output increases uptofold in horse
48. Race horses are most susceptible to deficiency of(B vitamin)
49. Proteolytic bacteria represent about% (range) of the total ruminal bacteria
50.is a measurement of the distensibility of the lungs and thorax and is determined by measurement of the lung

volume change for each unit of pressure change

- Answers:
 1. 65 : 35
 2. saliva, diffusion across rumen wall
 3. 3 : 1
 4. 7-8
 5. amylopectin
 6. FSH
 7. Estrone, estradiol and estriol
 8. Epitheliochorial
 9. Ewe
 10. Rat and mice
 11. Prolactin
 12. Pudental
 13. Fructose
 14. Atelectasis
 15. 1.34
 16. Pneumotoxic
 17. 20
 18. residual volume
 19. 2500 m
 20. 80oF
 21. NaCl
 22. Acetic (C2) > Propionic (C3) > Iso & N-butyric (C4) > Iso & N-valeric (C5) > Methyl butyric acid (C5)

23. Mid piece
24. 17
25. 60
26. small amount of progesterone
27. 80
28. 50, 25
29. GI movements
30. Pig and ruminants
31. Segmentation, Peristalsis
32. 100-200
33. Secretin
34. 75
35. 106; 20
36. Prolactin
37. Cephalic
38. cervix
39. Hessarghata
40. Allahabad Agricultural Institute
41. Batteli
42. Estrogen
43. 4.6
44. 400-500
45. spleen
46. Heart rate
47. 8
48. Thiamine
49. 12-38

50. Pulmonary compliance

•Veterinary biochemistry

- 1. The network of interrelated catabolic and anabolic pathways in cells is referred to as _____
- 2. A system that exchanges both energy and material with its surrounding is said to be _____
- 3. _____ is a type of weak interaction that stabilizes the native conformation of a biomolecule or supramolecular complex.
- 4. The monomeric subunits of _____ are ribonucleotides.
- 5. The stretching and breaking of bonds that occurs during the conversion of a reactant to a product creates a _____ state.
- 6. _____ is a measure of randomness.
- 7. Enzymes enhance the rate of chemical reactions by lowering the _____ energy that constitutes an energy barrier between reactants and products.
- 8. mRNA molecules with two or more attached ribosomes are called _____

9. _____ is a component of eukaryotic cells consisting of microtubules, actin filaments, and intermediate filaments.

10. _____ and _____ are the two groups of extant prokaryotes.

11. The role of _____ is to produce large number of ribosomes needed by the cell and have DNA that contain many copies of ribosomal RNA coding genes.

12. _____ helps in the condensation of DNA molecule.

13. _____, _____ and _____ are three classes of cytoskeletal proteins.

14. _____ is a complex of RNA and protein.

15. _____ are molecular complexes of DNA plus associated histone and nonhistone proteins.

16. _____ are compounds having electron-deficient functional groups; they tend to bond to electron-rich sites.

17. _____ are stereoisomers that cannot be superimposed.

18. _____ are a pair of stereoisomers that are not mirror images of each other.

19. _____ is the energy or heat content of a system.
20. Henderson-Hasselbalch equation = _____.
21. The glycan portion of glycoprotein is known as a _____ group.
22. A covalent bond between two adjacent cysteines in a polypeptide chain is a _____ bond.
23. All stereoisomers must have at least one _____ centre.
24. _____ procedure provides information about a protein's primary structure.
25. The whole assortment of proteins in an organism.
26. _____ are cellular agents that assist in protein folding at elevated temperatures.
27. _____ is stable arrangement of few secondary structures.
28. _____ is an amino acid which can either accept protons or donate them at a pH that is close to physiological pH values.
29. _____ interactions are thought to be the driving force behind the formation of "molten globule" during protein folding.

30. Individual amino acids in a protein is called a _____.

31. _____ refers to the portion of a protein that is often composed of noncontiguous amino acid sequences and is usually defined on the basis of its contribution to protein function.

32. _____ is a type of secondary protein structure that extends 0.15 nm per amino acid residue.

33. _____ is a type of secondary protein structure that extends 0.35nm per amino acid residue.

34. Disrupting the hydrophobic interactions of a single subunit protein would have the greatest effect on the _____ structure of that protein.

35. Proteins that belong to a _____ have related structural features though they are unrelated based on their amino acid sequences.

36. The alpha-beta subunits in hemoglobin comprise a single _____; the intact haemoglobin tetramer contains two of these.

37. The saddle conformation is a _____ structure.

38. alpha-Keratin is referred to as a

_____ of protein subunits; haemoglobin with only four subunits is referred to as a(n) _____

39. Beta turn is an example of _____ structure.

40. _____ occurs when the binding of one ligand increases or decreases the binding of additional ligands.

41. The _____ immune system protects against bacterial infections.

42. _____ has a hyperbolic oxygen binding curve, no quaternary structure and serves as an oxygen "reservoir" in muscle cells.

43. _____ has a sigmoid oxygen binding curve and has a quaternary structure.

44. _____ is also called programmed cell death.

45. The metabolic intermediate _____ binds to haemoglobin with a stoichiometry of 1:1 and promotes the release of oxygen.

46. A helper T cell can signal nearby lymphocytes by secretion of a signal protein called _____

47. The contribution of lactic acid in muscle tissue contributes to the _____ effect, which explains the link between lactate production

and an increased release of oxygen from haemoglobin.

48. RBCs transport carbon dioxide produced by respiring tissues in two forms: as bicarbonate ions and as _____

49. _____ are small molecules covalently attached to large proteins in the laboratory in order to elicit an immune response.

50. _____ is a particular molecular structure within antigen that binds an individual antibody.

51. Michaelis-Menten equation =

52. k_{cat} is known as the _____ number. At saturating substrate concentrations $k_{cat} = V_{max}/E_t$.

53. _____ inhibitor alters the K_m of an enzyme without altering V_{max} .

54. An enzyme without a prosthetic group is called _____.

55. The common structural motifs recognized by specific protein kinases are known as _____ sequences.

56. _____ is the enzyme that contains Ni^{2+} as a cofactor and was the first enzyme crystallized by Sumner. It enhances the rate of the reaction by _____.

57. A molecule essential to the functioning of an enzyme, but not part of the enzyme protein itself is called _____

58. _____ inhibitor binds only to the ES complex and does not bind to the substrate-binding site.

59. A specific, rare type of mixed inhibitor that alters V_{max} without affecting K_m is _____ inhibitor.

60. _____ of a substrate occurs when hydrogen bonds between a substrate molecule and water are replaced by noncovalent interactions between the substrate molecule and an enzyme.

61. _____ is an allosteric enzyme whose activity is regulated by a modulator other than its substrate whereas _____ is an allosteric enzyme whose substrate is also a modulator of activity.

62. When the $K'_{eq}=1$, $\Delta G'^{\circ} =$ _____

63. Inhibitors that reversibly bind to an enzyme are known as _____ inactivators.

64. The regulation of enzyme activity by the reversible binding of a phosphoryl group is an example of regulation by _____ modification.

65. Allosteric enzymes _____ (do/do not) follow Michaelis-Menten kinetics and some show _____ kinetic behaviour in the velocity versus substrate concentration plot which reflects cooperativity.
66. The plot of an enzyme kinetic reaction eventually plateaus as the active site is saturated with substrate. [T or F]
67. Six membered ring form of sugars are called _____ and five-membered ring form of sugars are called _____
68. Lectins are proteins that bind to specific _____
69. An isomer that differs at only one of two or more chiral centres are called _____
70. The process that interconverts isomers of pyranoses
71. _____ DNA is the dehydrated compact form of DNA.
72. _____ DNA is a structure containing polypurine tracts and mirror repeats and forms a triple helix.
73. _____ pairing or Non-Watson-Crick pairing allows the formation of triplex DNAs.
74. ____ of purine and ____ of pyrimidines is linked to C1 of ribose.
75. The increase in UV light absorption when

double-stranded DNA is denatured is referred to as the _____ effect.

76. Purine or pyrimidine base covalently bound to furanose through and _____

77. _____ bonds are covalent bonds that link the individual nucleotide residues in DNA and RNA.

78. The deamination product of :

a) Cytosine = _____

b) Guanine = _____

c) 5-methyl cytosine = _____

d) Adenine = _____

79. _____ is an extremely hydrophobic isoprenoid compound that anchors sugars to cell membranes.

80. The polar head group of cholesterol is _____ group.

81. _____ is a lipid seen in beeswax.

82. Lignoceric acid is a/an _____ free fatty acid with _____ carbon atoms.

83. The fatty acid 20:4(Δ 5,8,11,14) is commonly called _____ which is a precursor of _____

84. Match the following :

• A

• B

<ul style="list-style-type: none"> • 1. Testosterone and cortisol 	<ul style="list-style-type: none"> • a. fatty acid derivatives that act on the tissue in which they are produced.
<ul style="list-style-type: none"> • 2. Phosphatidylinositol and its derivatives 	<ul style="list-style-type: none"> • b. isoprenoids that are obtained from the diet
<ul style="list-style-type: none"> • 3. Eicosanoids 	<ul style="list-style-type: none"> • c. intracellular messengers that are components of the plasma membrane.
<ul style="list-style-type: none"> • 4. Vitamin K and Vitamin E 	<ul style="list-style-type: none"> • d. steroid hormones that are produced in a tissue and carried via blood stream to target tissues

- 85. _____ are lipids stored in adipocytes

KEY :

- 1) Metabolism
- 2) Open
- 3) non-covalent interaction
- 4) RNA
- 5) Transition
- 6) Entropy
- 7) Activation
- 8) Polysomes
- 9) Cytoskeleton
- 10) archaeobacteria and eubacteria
- 11) nucleolus

- 12) nucleosome
- 13) actin/microfilament; microtubules;
intermediate filaments
- 14) ribosome
- 15) chromatin
- 16) electrophiles
- 17) enantiomers
- 18) diastereomers
- 19) enthalpy
- 20) $\text{pH} = \text{pK}_a + \log\left[\frac{\text{proton acceptor}}{\text{proton donor}}\right]$
- 21) prosthetic
- 22) disulfide
- 23) chiral
- 24) Edman degradation
- 25) Proteome
- 26) Chaperones
- 27) Motif
- 28) Histidine
- 29) Hydrophobic
- 30) Residue
- 31) Domain
- 32) alpha helix
- 33) beta pleated sheet/beta conformation
- 34) tertiary
- 35) superfamily
- 36) protomer

- 37) supersecondary
- 38) supramolecular complex; oligomer
- 39) secondary
- 40) cooperativity
- 41) humoral
- 42) myoglobin
- 43) haemoglobin
- 44) apoptosis
- 45) 2,3-bisphosphoglycerate
- 46) Interleukin
- 47) Bohr
- 48) Carbaminohaemoglobin
- 49) Hapten
- 50) Epitope
- 51) $V_o = V_{max} + [S] / K_m + [S]$
- 52) Turnover
- 53) Competitive
- 54) apoenzyme
- 55) Consensus
- 56) urease; 10^{14}
- 57) cofactor
- 58) uncompetitive
- 59) noncompetitive
- 60) desolvation
- 61) heterotropic/homotropic
- 62) zero
- 63) suicide

- 64) covalent
- 65) do not; sigmoid
- 66) T
- 67) pyranoses; furanoses
- 68) oligosaccharides
- 69) epimers
- 70) mutarotation
- 71) A-DNA
- 72) H-DNA
- 73) Hoogsteen
- 74) N⁹;N¹
- 75) Hyperchromic
- 76) N-β-glycosidic bond
- 77) Phosphodiester
- 78) a. uracil; b. xanthine; c. thymine; d. Hypoxanthine
- 79) Dolichols
- 80) Hydroxyl
- 81) Triacontanylpalmitate
- 82) saturated/unsaturated; saturated;24
- 83) arachidonic acid; eicosanoids – an example: prostaglandins
- 84) 1.d; 2.c;3.a;4.b
- 85) Triacylglycerol

. **Animal biotechnology**

- • Chemical synthesis of DNA was devised by-
H. G. Khorana
- • Most commonly used type of restriction
enzymes are of- Type II
- • Major complement component present in
serum is- C3 • PCR technique was developed
by – Kary. B. Mullis
- • Major DNA polymerase involved in
replication in prokaryotes is- DNAP III
- • Most abundant polysaccharide among living
system- Cellulose
- • Recombinant DNA technology developed by
– Cohen and Boyer
- • No: of assymetrical carbon atoms in
Ribulose- 2
- • Semi-conservative replication of DNA was
proved by- Meselson and Stahl
- • Protein part of an enzyme is termed as-
Apoenzyme

- • During replication, the enzyme that prevents torsion by breaking DNA strands- Topoisomerase.
- • Eukaryotic DNAP for mitochondrial DNA replication is- DNAP-gamma.
- • Monoclonal antibody technique developed by - Kohler and Milstein
- • The most stable form of DNA and RNA seen under physiological condition is B-DNA and A-RNA respectively
- • Type II restriction enzymes were discovered by – Hamilton Smith (1970)
- • In prokaryotes, the DNA polymerase having 5' -3' exonuclease activity DNAP I.
- • Concept of Transformation was proved by- Griffith
- • During replication of DNA the separation of double strands is done by Helicases.
- • DNA replication takes place from 5'-3'

direction.

- • Cracking of genetic code was performed by- Nirenberg and Mathaei.
- • Nucleotide sequence within a gene that is transcribed into RNA but excised before translation is called- Introns. • Jumping genes or transposons were first reported by – Barbara McClintock.
- • One gene-One Enzyme hypothesis was proposed by- Beadle and Tatum.
- • Operon concept was proposed by- Jacob and Monod.
- • The major form of super coiling found in chromatin is- Solenoidal.
- • Phenomenon of Conjugation was put forth by - Lederberg and Tatum.
- • Histones are rich in amino acids arginine and lysine.
- • Wobble hypothesis was proposed by- Francis Crick

- • Bacterial DNA is compacted in a structure called- Nucleoid.
- • Transfer RNA is produced by - RNA polymerase III.
- • Chemical method of DNA sequencing was developed by- Maxam and Gilbert.
- • 'Molecular beacons' are probes used in detection system for- Real Time PCR.
- • Reverse transcriptase was first discovered by- Temin and Baltimore.
- • The enzyme employed for amplification of specific genes in PCR technique is Taq DNA polymerase.
- • In Agarose gel electrophoresis, the movement of proteins is based on Charge:Mass ratio.
- • Phenomenon of transduction was proposed by- Zinder and Lederberg.
- • The medium used for selecting myeloma

cells in hybridoma technology is HAT medium.

- • Amino acid that does not exhibit optical activity is- Glycine.
- • In nucleotides, both types of pentoses are in beta-furanose form.
- • In alkaline conditions, RNA is rapidly hydrolyzed due to the presence of 2'- OH group.
- • Hinge region of IgG is rich in - Proline.
- • Imidazole group is present in the amino acid- Histidine. • In SDS-PAGE, the movement of proteins is based on- Mass.
- • Separation of proteins in iso-electric focusing is based on- Isoelectric point of the particular protein.
- • The reagent developed by Sanger to identify the amino terminal amino acid is 1-fluoro-2,4-Dinitrobenzene.
- • 'Beta turn' is a secondary structure of protein.

- • The most abundant amino acid present in collagen is- Glycine.
- • Hershey and Chase first reported that DNA is the genetic material.
- • In reversible competitive inhibition of an enzymatic reaction, V_{max} remains same but K_m increases.
- • Co-factor for Glutathione peroxidase is – Selenium.
- • In Agarose gel electrophoresis the DNA is visualized using- Ethidium bromide.
- • Megaloblastic anemia often occurs due to deficiency of -Folic acid.
- • The prosthetic group present in amino transferases is- Pyridoxal phosphate.
- • Reverse transcriptases are present in – Retroviruses and Hepadna viruses.
- • A diploid cell line of human origin is- HeLa.
- • Vero cell lines are obtained from -African

green monkey.

- Cell lines are commonly preserved in- Liquid Nitrogen.
 - Viruses commonly used for production of vector vaccines are- Fowl pox virus, Retrovirus and Herpesvirus.
 - Size of a prokaryotic cell generally ranges
- Biotechnology
- 1) Urey and Miller created the primitive environment in the Spark chamber and used Hydrogen, Ammonia, Methane and Water vapor to simulate the chemical origin of life. The surprising molecule they obtained after the experiment was A. Proteins B. Lipids C. Amino acids D. Polysaccharides
 - 2) The most accepted theory of origin of life is A. Special creation theory B. Theory of abiogenesis C. Oparin haldane theory D. Theory of spontaneous generation.
 - 3) In mammalian cells rRNA is produced mainly in the (A) Endoplasmic reticulum (B) Ribosome (C) Nucleolus (D) Nucleus.

- 4) HDL is synthesized and secreted from (A) Pancreas (B) Liver (C) Kidney (D) Muscle
- 5) Virus-mediated transfer of cellular genetic material from one bacterial cell to another by means of virus particles is called: (A) Transduction (B) transposition (C) transformation (D) transfection
- 6) The only antibody that crosses placenta is A) Inga B). IgD C). IgG D). IgE
- 7) Mitochondrial DNA is (A) Circular double stranded (B) Circular single stranded (C) Linear double helix D) None of these.
- 8) Mendel used the following term to express inheritance of character... A) DNA B) Gene C) Factor D) chromosome. 9) The terminal sugar present on RBC in blood group " A" is... A) Galaxies B) Galactosamine C) Glucose D) Fructose. 10) A molecular tool used in assessing genetic diversity among animals is A) allonym pattern. B) DNA fingerprinting. C)tryptic peptide map of actin D) DNA

Footprinting.

- 11) Nodes of Ranvier are associated with
A) Myelinated neuron B) Non myelinated neuron C) Lateral ventricle D) Synapses
- 12) Spliceosomes are involved in A). cutting of DNA in genetic engineering B). splitting of Pre mRNA C). formation of Nucleosomes D). Prokaryotic DNA synthesis
13) ELISA is used to detect HIV but the confirmation of HIV infection is done through A). Southern blotting B). Western blotting C). Eastern blotting D) DNA finger printing
- 14) In nuclear magnetic resonance (NMR) spectroscopy, the absorption spectra result by the absorption of one of the following electromagnetic radiation by the spinning nucleus: (A) ultraviolet waves (B) infrared waves (C) radiowaves (D) microwaves.
- 15)) Cystic fibrosis is due to: (A) defective chloride channel (B) defective LDL receptor (C) High levels of HDL (D) increased dopamine.

- 16) When flagella are distributed all around a bacterial cell, the arrangement is called A) polar B) random C) peritrichous D) encapsulated.
- 17) The fact that viruses are obligate intracellular parasites means that they require a _____ for reproduction. A) culture dish B) host cell C) phenol red broth D) secondary virus.
- 18) Organisms that ferment glucose may produce any of the following end products except A) lactic acid B) propionic acid C) alcohol D) oxygen.
- 19) Milk lack which of the following vitamins? (A) Vitamin C (B) Vitamin A (C) Vitamin B2 D) Vitamin K.
- 20) The percentage of water contained in the body of an individual is less because of (A) High fat content (B) Low fat content (C) High protein content (D) Low protein content
- 21) Which one of the following enzymes is

obtained from *Thermophilus aquaticus* bacterium which is heat stable and used in PCR at high temperature . A) DNA polymerase III B). Endonuclease C). Taq polymerase D). DNA gyrase

- 22) Carbonic anhydrase, the fastest enzyme in the living system is present in A). Pancreatic juice B). Hepatic cells C). RBC D). Neuroglia.
- 23) Genes that are located at identical loci of homologous chromosomes are called: (A) alleles (B) polygenes (C) homozygous (D) pseudogenes.
- 24) Which of the following do not obey the “ Cell Theory” A) Viruses B) Bacteria C) Eukaryotic cell D) None of the above
- 25)) To determine the physical distance between gene on chromosome the unit is... A) Centi meter. B) Centi Morgan C) Mili meter. D) Kilo meter.
- 26) One of the following striking example of Natural selection is A. Neck of giraffe B. Wing

of Bat C. Color of Peppered moth D. Tail of Rat
27) Duct of Bellini is associated with A) Spleen
B). Liver C). Salivary glands D). Kidney.

- 28) Which of the following factors will not allow Hardy-Weinberg principle to operate A). Inbreeding B). Mutation C). Gene pool D). Selection
- 29) One of the following cells can stimulate secondary immune response in the body followed by an infection A) T-cell B). B-cell C). Memory cell D). Stem cell.
- 30) Which of the following will be the best choice to study the plasma membrane A) R.B.C B) Fat cell C) Neuron D) Kidney cell
- 31) HAT selection is based on: (A) TK and HPRT genes (B) APRT and ATK genes (C) HK and AP genes (D) HAT gene. 32) Blood grouping is an example of... A) Incomplete dominance B) Co-dominance C) recessive character D) None of the above
- 33) In *Drosophila melanogaster*, sex is

determined by: (A) X and Y chromosomes (B) X/A ratio (C) Ploidy (D) Z and W chromosomes

- 34) On which of the following chromosomes are most of the sex-linked traits carried ? A)13 B) 18 C)Y D)X.
- 35) Binding of Mannose 6- P to protein lead to its localization to (A) Lysosome (B) Golgi body (C) Plasma membrane (D) Nucleus
- 36) Which of the following is Ca-binding protein (A) Actin (B) Myosin (C) Troponin (D) Tropomyosin.
- 37) Which of the following shows sporulation along with social behaviors? (A) Archebacteria (B) Bacillus (C) Actinomycetes (D) Eubacteria
- 38) If a part of bacterial genome is doubled it is called as (A) Amphidiploid (B) Merodiploid (C) Endodiploid (D) Polyploid
- 39) Which organelle is involved in conversion of fat to carbohydrate in seeds. (A)

Glyoxysomes (B) Peroxisomes (C) Golgi bodies (D) Mitochondria

- 40) Role of carrier between PSII & PSI (A)
Carries electron from P680 to P700 (B) Carries electron from P700 to P680 (C) Carries oxygen from P680 to P700 (D) Carries proton from P680 to P700. Answer Key : 1-C 5- A 9-B 13-B 17- B 21- C 25- B 29- C 33- B 37-B 2-C 6- C 10-B 14- C 18- D 22- C 26- C 30- A 34- D 38-B 3 -C 7- A 11- A 15-A 19- A 23- A 27- D 31- A 35- A 39-A 4-B 8- C 12-B 16- C 20- A 24- A 28-B 32-B 36-C 40-A

•Animal nutrition

- 1. Albumins are not soluble in water.
- 2. Elastins are fibrous proteins.
- 3. Triglycerides are known as fat.
- 4. G.E. content of fat is about 4 kcal/g.
- 5. Net yield of ATP per mole of glycerol is 21.
- 6. Thaer developed the first feeding standard.

7. Sucrose is sweetest of all the sugars.
8. Maltose is a reducing sugar.
9. Starch equivalent of wheat bran is 45.
10. Antibiotics are essential for large ruminants in feed.
11. NFE is determined by analysis.
12. BMR declines about 8% per year of age.
13. Vitamin E deficiency causes crazy chick disease.
14. VanSoest system of feed analysis was proposed in 1967.
15. Activity increment of cattle, sheep and swine is less when compared to poultry.
16. R.Q. for carbohydrate is 0.7.
17. Blood meal is deficient in isoleucine but rich in lysine.
18. Soybean meal is rich in methionine.
19. The pH of silage in A. I. V. method is kept below 4.
20. For guinea pig the Vitamin C requirement is 222 mg/kg DM of diet.
21. Zone of thermal neutrality for pig is 20-26°C.
22. Chief route of phosphorus excretion in ruminants is urine.
23. Molybdenum deficiency in chicken causes femoral head necrosis.

24. Plasma calcium level is 4-5 mg/dL in most species.
25. Chromium deficiency causes impaired glucose tolerance.
26. Diammonium phosphate contains 18% Nitrogen and 20% Phosphorus.
27. Iron requirement for pig is 80mg/kg diet.
28. 1 IU of Vitamin E is equal to 1 mg α tocopherol acetate.
29. Menadione is both water-soluble and fat-soluble.
30. Fibrobacter succinogens is the chief fibre degrading bacteria in the rumen.
31. Fungal count in rumen is 10^3 to 10^5 /ml of rumen liquor.
32. Specific function of rumen fungi is substrate penetration.
33. Sequestration is function of holotrich protozoa.
34. Microbe with highest protease activity in rumen is bacteria.
35. Majority of rumen bacteria are Gram positive.
36. Butyrivibrio fibrisolvens is a hemicellulose degrading bacteria.
37. Defaunation causes increase in bacterial and fungal biomass.

38. Yeast is a probiotic.
39. Trypsin acts on the peptide linkage involving aromatic amino acids.
40. Secretion of Brunners gland is alkaline.
41. Amino peptidase and di peptidase is secreted from small intestine.
42. Monensin supplementation increases methane production in ruminants.
43. The chief end product of purine metabolism in ruminants is allantoin.
44. Prehensile organ of cattle is lip.
45. MFN has no relationship with feed intake.
46. Maintenance requirement of dogs is 132 kcal/kgW^{0.75}.
47. Haecker showed that nutritive requirements varied with quality and quantity of milk produced in dairy cattle.
48. Microbial digestion in rabbits takes place in proximal colon and caecum.
49. Armsby developed surface area law.
50. As per NRC, protein content in hamster diet should be 15%.
51. Methane is the chief rumen gas.
52. Struvite is Magnesium Ammonium Phosphate.
53. In dairy cows grazing resulted in a maintenance requirement that was 40%

greater than when they were fed in the barn.

54. Terpenes yield isoprene moiety on degradation.

55. Lymph draining the intestine is always milky in ruminants.

56. Availability of calcium is 45%.

57. β oxidation of fat takes place in endoplasmic reticulum.

58. 1000 ppm TDS is ideal for water.

59. Cats are very sensitive to deficiency of arginine.

60. Metabolic water comprises 20-25% of total water intake of domestic animals.

- . Chairman of the scientific panel set up for the development of the first edition of feeding standard published by ICAR in 1985?
N. D. Kehar
- 2. A scientist from KAU, who was a member of the sub-committee for drafting ICAR feeding standards for goats?
M. Shivaraman
- 3. Feeding standards in U. K. is developed by?
A R C
- 4. Starch digestibility in rumen ranges from?
63-70%

- 5. Chief cellulose degrading bacteria of rumen?
Fibrobacter succinogens
- 6. Only VFA present in appreciable quantity in peripheral blood as an important energy source?
Acetate
- 7. Berseem is a plant from?
Egypt
- 8. A I V method of silage making uses the acids?
Sulphuric acid and Hydrochloric acid
- 9. Flieg index is a commonly used method for evaluation of?
Silage quality
- 10. Silo-fillers disease is an illness of farm workers that is caused by inhalation of the oxides of?
Nitrogen
- 11. "Vana Mahotsava" the annual festival of trees was inaugurated in?
1950
- 12. Beneficial effect of condensed tannin in legumes is attributed to their ability to?

Protect protein

- 13. Name two tannin complexing agents?
Polyethylene glycol (PEG) and
Polyvinylpyrrolidone (PVP)
- 14. 3,4 DHP (dihydroxypyridone) and 2, 3 DHP
are the break down products of the
antinutritional factor?
Mimosin
- 15. Chief endproduct of purine metabolism in
ruminants?
Allantoin
- 16. A naturally occurring fatty acid found in
ruminant products which has beneficial health
attributes like anticarcinogenic activity, anti
obesity and anti atherogenic activity?
Conjugated linoleic acid (CLA)
- 17. Plants belonging to genus Brassica has
the antinutritional factor.....?
Glucosinolates
- 18. Slobber syndrome and facial eczema in
cattle is caused by the consumption of....?
Mycotoxins (slaframine and swainsonine)
- 19. Hydrated sodium calcium aluminosilicates

(HSCAS) are added in feed for?
Binding mycotoxins

- 20. Maximum permitted level of aflatoxin in animal feeds (as per Prevention of food adulteration act)?
30 ppb (0.03 ppm)
- 21. BT cotton has the gene from the bacterium?
Bacillus thuringiensis
- 22. Plant which is named Biodiesel?
Jatropha
- 23. The oil seed crop that is produced in the largest amount in the world is?
Soybean
- 24. Domesticated avian species having high requirement for Niacin?
Duck
- 25. Mineral which is present in glucose tolerant factor?
Chromium
- 26. Central Research Institute for Dry land Agriculture (CRIDA) is located at?
Hyderabad

- 27. Tree loppings or prunings available as feed in silvipastoral system is termed?
Top feeds
- 28. Name a selenium accumulator plant?
Astragalus
- 29. N : S ratio of wool?
5:1
- 30. The pathway of propionate production in animal consuming high fibrous diet?
Succinate pathway
- 31. Term metabolizability denotes?
ME/GE
- 32. Vitamin C requirement for guinea pig diet?
200 mg/kg feed
- 33. Fodder feed is?
Cow pea
- 34. VFA having maximum absorption rate is?
Butyrate
- 35. Zinc deficiency causes infertility in males because it is a component of the enzyme.....?
Thymidine kinase
- 36. Preferred source of enzyme for estimating

degradability of protein in French PDI system?
S. griseus (protease)

- 37. Alkaloid in legume which predispose bloat?
Saponin
- 38. If no green grass is fed to ruminants the concentrate mixture should have Vitamin A at the rate of?
5000 IU/Kg
- 39. Other than HMP shunt, the conversion ofto is a source of NADP in non ruminants?
Malate to Pyruvate
- 40. Phosphorus content of bran?
1.2-1.5%
- 41. Carprice reaction is concerned with the estimation of?
Vitamin A
- 42. Antimetabolite of folic acid?
Aminopterin
- 43. Fatal syncope in calves and pigs is due to deficiency of?
Vitamin E
- 44. First discovered amino acid?

Asparagine

- 45. Chief acid of silage is?
Lactic acid
- 46. Silo with minimum spoilage is?
Upright silo
- 47. Scotopsin is rich in the amino acid?
Lysine
- 48. Meskawi is a common variety of the plant?
Berseeem
- 49. Domesticated ruminant with highest BMR?
Goat
- 50. Deficiency disease in which ceroid pigment is accumulated in adipose tissue of cats?
Yellow fat disease/Pansteatitis (Vitamin E deficiency)
- 51. Colour of pure vitamin A?
Colourless
- 52. Reference standard in a Bomb calorimeter?
Benzoic acid
- 53. Brouwer equation is used to estimate?
Heat production

- 54. A fungal enzyme added in poultry feeds containing barley?
 β glucanase
- 55. Ruminant which is most prone to both cobalt deficiency and copper toxicity?
Sheep
- 56. Biological value of microbial protein?
80
- 57. $(DCP + DTP)/2$ is ?
Protein Equivalent
- 58. The pathway occurring in plants which is responsible for the conversion of fat to carbohydrate?
Glyoxylate cycle
- 59. First two enzymes of urea cycle is located in?
Mitochondria
- 60. Cell organelle involved in initial steps of alkoxy-phospholipid biosynthesis which leads to the production of plasmalogens?
Peroxisomes
- 61. Aminoacid required for the production of carnitine?

Lysine

- 62.% of the nitrogen of milk is NPN?
5%
- 63. Hammer mill works on the principle of/
Impact grinding
- 64. Major pathway for ATP synthesis in
tissues lacking mitochondria like RBC, cornea
and lens?
Glycolysis
- 65. Metals inhibiting pyruvate dehydrogenase
complex?
Arsenic and Mercury
- Multiple Choice Questions
- 1. Efficiency of conversion of β carotene to
vitamin A is in the order?
a. Rat>Ruminants> Pig> Poultry
b. Rat>Poultry>Pig>Ruminants
c. Rat>Poultry>Ruminants>Pig
d. Pig>Poultry>Ruminants>Rat
- 2. Rumen degradable protein content is
highest for?
a. Soybean meal
b. Coconut cake
c. Groundnut cake

- d. Fish meal
- 3. The feed which is fed “whole” to poultry but “crushed” to cattle and pig?
 - a. **Pearl Millet**
 - b. Great Millet
 - c. Barley
 - d. Jowar
- 4. Experimental animals for determining GPV of a feed?
 - a. Rats
 - b. Rabbit
 - c. Guinea pig
 - d. **Chick**
- 5. Order of the efficiency of conversion of Tryptophan to Niacin?
 - a. Pig>Chicken>Duck>Cat
 - b. Cat>Chicken>Duck>Pig
 - c. **Chicken>Pig>Duck>Cat**
 - d. Duck>Chicken>Pig>Cat
- 6. Which of the following is common to salseed, sorghum and jowar?
 - a. Mucilage
 - b. **Tannin**
 - c. Glucosinolate
 - d. Mimosine
- 7. Colour of ruminant bile?
 - a. **Green**

- b. Golden yellow
- c. Orange
- d. Colourless
- 8. DCP% is highest for?
 - a. Lucerne hay**
 - b. Berseem hay
 - c. Oat hay
 - d. Wheat straw
- 9. Which of the following is required for Ubiquinone synthesis?
 - a. Vitamin A and Copper
 - b. Vitamin E and Selenium
 - c. Vitamin E and Copper
 - d. Vitamin C and Selenium**
- 10. The order of toxicity is?
 - a. Tyrosin>Threonine>Methionine
 - b. Methionine>Threonine>Tyrosine
 - c. Threonine>Tyrosine>Methionine
 - d. Methionine>Tyrosine>Threonine**
- 11. Which of the following is most important in inhibiting the digestibility of paddy straw?
 - a. Lignin
 - b. Silica**
 - c. Hemicellulose
 - d. Oxalate
- 12. Concentration of Ammonia and Total VFA in rumen is highest for?

- a. **Goat**
- b. Buffalo
- c. Sheep
- d. Cattle
- 13. Most promising initial symptom of Vitamin A deficiency in cows and horses?
 - a. **Copius lacrymation**
 - b. Copius salivation
 - c. Xerophthalmia
 - d. Night blindness
- 14.% NDF in total ration is critical for maintenance of normal milk fat?
 - a. 66%
 - b. 18%
 - c. 73%
 - d. **36%**
- 15. Urea treatment of straw increases?
 - a. CP and DCP
 - b. TDN
 - c. Dry matter digestibility and feed intake
 - d. **All the above**
- 16. Pregnancy toxemia is seen in?
 - a. Sheep and Goat
 - b. Sheep and Rat
 - c. **Sheep and Guinea pig**
 - d. Sheep and Rabbit
- 17. Taurine requirement of cats ismg/kg

DM in diet?

a. 200

b. 500

c. 800

d. 1000

- 18. Amino acid precursor of lignin?

a. Phenylalanine

b. Tyrosine

c. Alanine

d. Glycine

- 19. Mineral needed for acetate incorporation in cholesterol biosynthesis?

a. Calcium

b. Copper

c. Manganese

d. Magnesium

- 20. Microbe in rumen capable of breaking lignocellulosic bond?

a. Bacteria

b. Protozoa

c. Fungi

d. None

- 21. Protease activity in rumen is highest for?

a. Bacteria

b. Protozoa

c. Fungi

d. Bacteriophage

- 22. Naturally occurring fatty acid hasconfiguration?
 - a. **Cis**
 - b. Trans
 - c. Both
 - d. None
- 23. Which of the following is common in nature?
 - a. D sugars and D amino acids
 - b. L sugars and L amino acids
 - c. **D sugars and L amino acids**
 - d. L sugars and D amino acids
- 24. The order of salt tolerance?
 - a. **Sheep>Cattle>Pig>Poultry**
 - b. Sheep>Pig>Cattle>Poultry
 - c. Cattle>Sheep>Pig>Poultry
 - d. Pig>Cattle>Sheep>Poultry
- 25. Urea supplementation is not recommended if CP content of ruminant diet is above?
 - a. 18%
 - b. 25%
 - c. 7%
 - d. **13%**
- 26. Which of the following deficiency contribute to perosis?
 - a. Manganese and Choline

- b. Biotin and Folic acid
- c. Thiamine, Manganese, Choline, Biotin and Folic acid
- d. Vitamin B12, Manganese, Choline, Biotin and Folic acid**

- 27. Order of tolerance of aflatoxin?
 - a. Chicken>Guinea fowl>Duck
 - b. Duck>Guinea fowl>Chicken
 - c. Guinea fowl>Chicken>Duck**
 - d. Chicken>Duck>Guinea fowl
- 28. Arrange the susceptibility to aflatoxin by domestic animals in descending order?
 - a. Rabbit> Pig> Cattle>Sheep>Chicken**
 - b. Pig>Rabbit>Sheep>Chicken>Cattle
 - c. Chicken>Rabbit>Pig>Sheep>Cattle
 - d. Cattle>Sheep>Rabbit>Pig>Chicken
- 29. Which of the following is used as energy source (not protein source)?
 - a. Linseed meal
 - b. Salseed meal**
 - c. Mustard cake
 - d. Sunflower cake
- 30. All reactions in TCA cycle are reversible except the formation of?
 - a. Succinyl CoA**
 - b. Succinate
 - c. α keto glutarate

- d. Fumarate
- 31. Which of the following cereal has more lysine content?
 - a. Rice
 - b. Wheat
 - c. Corn
 - d. Oats**
 - 32. β oxidation can occur in?
 - a. Mitochondria
 - b. Peroxisomes
 - c. Both**
 - d. Endoplasmic reticulum
 - 33. Glycosphingolipids and glycoproteins are synthesized in?
 - a. Golgi body**
 - b. Mitochondria
 - c. Endoplasmic reticulum
 - d. Glyoxysomes
 - 34. Rate limiting enzyme in cholesterol biosynthesis?
 - a. α 1-4 glucosidase
 - b. HMG CoA reductase**
 - c. Squalene synthetase
 - d. 7 α hydroxylase
 - 35. For fatty acid synthesis, Acetyl CoA comes from mitochondria to cytoplasm as?
 - a. Carnitine

- b. Malate
- c. Citrate**
- d. Oxaloacetate

- • Father of nutrition- Antoine Lavoisier
- • The yeast variety commonly known as “fodder yeast”-*Torulopsis utilis*
- • Water content in the body of new bone calf is -80%
- • In Van Soest method of feed estimation the ADF comprises of ----cellulose and lignin
- • The only true ketogenic amino acid-leucine
 - • Fat contains ----% carbon-77
 - • A dietary excess of Tyrosine cause -eye lesions
 - • Dietary excess of Methionine produces - inhibition of ATP synthesis
 - • Zinc forms an integral part of enzyme- Carbonic anhydrase
- • About 96% of plasma copper is bound to an

alpha-2 globulin called Ceruloplasmin

- • Organic acids promotes the absorption of calcium
- • Curled toe paralysis is caused by the deficiency of -Riboflavin
- • One IU of vitamin A is equivalent to 0.6mcg of beta-carotene
- • Vitamin A promotes muco-polysaccharide synthesis by- activating sulphate molecule
- • 'Ito cells' in the liver is the storage site of - Vitamin E
- • Vitamin E is involved in the synthesis of - Ascorbic acid and ubiquinone
- • Ascorbic acid was first isolated by-Szent Gyorgi
 - • A dermin or vitamin H is-Pyridoxine
- • Niacin requirements can be compensated with-Tryptophan
- • The entire process of citric acid cycle take

place in side mitochondria -under aerobic condition

- • Branching enzyme in glycogen synthesis is - Glycosyl 4,6 transferase
- • Rate limiting step in glycogen synthesis is- addition of activated glycosyl units
- • Apart from liver cells which other body tissue is capable of producing glucose intestinal cells
- • “Alkali disease” or “blind staggers” is caused by the toxicity of –Selenium
 - • Glutathione and insulin contains-Sulfur
- • Chromium deficiency may lead to - Impaired glucose tolerance
 - • Nickel is essential for urease activity of rumen microbes.
 - • Jerusalem antichoke contains the main reserve carbohydrate- Inulin
 - • The term “protein” is coined by-Mulder
 - • Who introduced the balance and

thermometer in to nutrition studies for the first time?-Antoine Lavoisier

- • Pinnaglobulin contains Manganese and hemocyanin contains copper
- • Legumes are exceptionally rich in - Calcium
 - • Germinating Barley contains a starch digesting enzyme called -Diastase
- • Skim milk is the feed ingredient which can said to be rich in both- Calcium and Phosphorus
- • First accurate respiration calorimeter was constructed by -Rubner • Starch equivalent system was designed by-Kellner • According to NRC, the $ME=DE \times 0.85$
- • Physiological fuel values were devised by- Atwater
 - • Heat increment consists of -Heat of fermentation and Heat of nutrient metabolism
 - • Feces is the main route of phosphorus excretion in herbivores and urine is in case of

carnivores.

- • Citrate ,lactate ,pyruvate ,ascorbate etc enhance the absorption of -Iron
- • RUMENSIN, MONENSIN modifies rumen fermentation by -promoting propionate producing microbes
- • In hibernating animals the RQ is - less than 0.7
 - • Whole blood contains from 35-45mg % phosphorus
 - • Glucosyl transferase needed in mucopoly sacharide synthesis depend onManganese
 - • 'Degnala disease' is caused by -Selenium toxicity
- • Net gain of ATP while one mole of glucose is oxidized completely-36
 - • Scandinavian feeding system based on barley as the standard is introduced byHanssen

- • Urea toxicity results when the rumen ammonia level exceeds -80mg/100ml
- • Leaves of plants contain galactolipid as the major lipid Courtesy:
- 1. _____ is an important mineral component of cytochrome oxidase enzyme.
- 2. _____ is low moisture silage with characteristics between those of hay and silage.
- 3. Ruminants are _____ (more/less) susceptible to HCN poisoning than are horses and pigs.
- 4. _____ deficiency in poultry feed leads to the production of leathery eggs.
- 5. Parturient paresis is another name for the disease _____.
- 6. Deficiency of phosphorus in diet causes condition of deprived appetite in animals called as_____.

- 7. Tearts condition is related to _____ mineral and is also known as _____.
 - 8. A particular type of skin disorder in pigs is caused by the deficiency of _____.
 - 9. Feeding acidified diet during the later part of dry period in large animals is suggested to prevent a metabolic disorder called as _____.
 - 10. In _____ (Acute/chronic) phosphorus deficiency animals may have stiff joints and muscular weakness.
- NUTRITION
QUESTIONNAIRE [DR. SHEIKH FIRDOUS
AHMAD firdousa61@gmail.com] INDIAN
VETERINARY RESEARCH INSTITUTE Page 2
- 11. Maintenance of cerebro-spinal fluid pressure is an important function of _____ .
 - 12. Zinc is an important component of an enzyme _____.
 - 13. Rubbery legs condition in poultry is due to the deficiency of which vitamin _____.

- 14. FLKS syndrome is mainly caused due to deficiency of _____.
- 15. Cyanocobalamin is another name for which vitamin _____. 16. Molasses is a _____ (good/bad) source of energy.
- 17. _____ is a byproduct produced during juice / extract prepared from selected plant material.
- 18. The maximum level of inclusion for molasses in cattle ration is up to ____ (%) and up to ____ (%) in poultry ration.
- 19. The quality of molasses is measured in terms of _____.
- 20. Most common anti-nutritional factor in leaves of plants is _____.
- 21. True digestible energy is always _____ than the apparent digestible energy.
- 22. The concept of starch equivalent was initially pioneered by _____.

- 23. Physiological fuel value concept was given by _____.
 - 24. _____ is defined as the weight gain per unit weight of protein eaten.
 - 25. Nitrate is itself _____ (toxic/non-toxic) to animals 26. Hay contains _____ (%) moisture while as in silage, its level is _____ (%).
 - 27. The proximate analysis, a scheme for routine description of animal feedstuffs was devised in the year _____ by two scientists named _____ & _____.
 - 28. _____ factor in Weende's analysis is not actually determined.
- NUTRITION QUESTIONNAIRE [DR. SHEIKH FIRDOUS AHMAD firdousa61@gmail.com]
 INDIAN VETERINARY RESEARCH INSTITUTE
 Page 3
- 29. Clubbed down condition of embryos is caused due to the deficiency of _____.
 - 30. Goose stepping gait is manifested in

_____ (species) due to the deficiency of _____.

- 31. _____ is used to measure the true protein content in the feed.
- 32. _____ (anti-nutritional factor) can quickly produce anoxia of the central nervous system and death can result within a few seconds.
- 33. The deficiency of _____ in feed is attributable to the occurrence of slipped tendon.
- 34. Chastek paralysis is caused by the deficiency of _____.
- 35. Avidin chelates _____ vitamin. For key: Make out your own key, send it at the mail ID given, your key will be corrected and resend to you. O&E

• Animal genetics

- 1. Scientist who coined the term Genetics
- 2. What is the contribution of Wilhem Johanssen to Genetics?
- 3. Theory of pangenesis was proposed by -----

4. The concept of Genotype and Phenotype was introduced by ---
5. Chromosome theory of heredity was proposed by
6. Germ plasm theory was put forward by
7. The nationality of Gregor Mendel who is regarded as "father of genetics"
8. In 1900, Mendel's work were rediscovered by ---
9. Law of Segregation is also known as---
10. Human blood group type is an example of --
11. --- and --- are two recessive traits that are inherited.
12. What is the ratio due to double recessive epistasis?
13. Linkage was first observed by--- in sweet pea.
14. Crossing over occurs in the --- stage of meiosis.
15. Chromosome number in fowl is ----
16. Epistasis works at-- level where as Dominance always work at the --level
17. What is penetrance ?
18. The degree to which a genotype is expressed phenotypically is called
19. Name the scientist who first discovered chromosomes
20. Who coined the term Chromosomes?
21. The organelle from which the r-RNA is synthesized
22. Metacentric chromosomes assume which shape?
23. Pairing of the homologous chromosomes takes place at --- stage
24. Coiled filament that runs throughout the length of the chromosome is called
25. Darkly stained regions of the chromosomes at prophase is called --
26. Sex chromatin are rich in -----
27. Where are Lampbrush chromosomes found?
28. The Octate structure in the nucleosome consists of --
29. Balbiani rings or Chromosomal puffing are present in-----
30. Interphase of the cell cycle consists of ----
31. Complete synaptonemal complex is found in which stage?
32. Sythesis of DNA is completed in --stage of Meiosis
33. The unit representing a map unit between the linked gene.....
34. Phenomenon by which crossing over in one region suppresses crossing over in adjacent region--
35. What is coefficient of coincidence ?
36. -- is measured using coefficient of coincidence ?
37. In fowl females are heterogametic T / F
38. Barred plumage in poultry is a type of --
39. Genic balance theory of sex determination was proposed by ---
40. -- confirms the presence of barr body in female somatic cells.
41. ---syndrome which is caused by deletion of short arm of chromosome no 5
42. Point mutation was first noticed by --- in Ancon sheep?
43. World's first chromosome map was produced by---
44. The no . of chromosomes in Drosophila is ----
45. Haploid-Diploid type of sex determination is seen in ----
46. In Drosophila sex is determined by the ratio of X chromosome to ----
47. Polyploids created by chromosome duplication is called ----
48. The presence of extra chromosome sets in a cell is called as -----
49. which is the stain used for G banding--
50. The chart of images of chromosomes is called ----

- ANSWERS
 1. William Bateson
 2. Coined 'allele' and 'genes'
 3. Darwin
 4. W Johanssen
 5. W S Sutton
 6. Weismann
 7. Austria
 8. Hugo de Vries, Carl Correns Eric von Tschermack
 9. Law of purity of gametes
 10. Multiple alleles
 11. Alkaptonuria and Phenylketonuria
 12. 9:7
 13. Bateson and Punnet
 14. Pachytene
 15. 78
 16. Intergenic, Intragenic
 17. % of individuals with a given genotypes which exhibits the related phenotypes.
 18. Expressivity
 19. Strassburger
 20. Waldeyer
 21. Nucleolus
 22. " V " shape
 23. Zygotene
 24. chromonema
 25. heterochromatin
 26. Heterochromatin
 27. Primary oocytes of amphibians and spermatocyte of Drosophila.
 28. Two molecules each of H2A, H2B, H3 and H4.
 29. Salivary gland cells of Drosophila.
 30. G1, S and G2
 31. Zygotene
 32. Zygotene
 33. CentiMorgan
 34. Interference
 35. % of observed cross overs/ % of expected crossovers (RATIO)
 36. Degree of interference
 37. T
 38. Sex linked character
 39. C.B. Bridges
 40. Lyon's hypothesis
 41. Cridu-chat syndrome
 42. Seth Wright
 43. Alfred Sturtevant
 44. 8
 45. Honey bees and wasps
 46. Autosomes
 47. Autopolyploid

48. Polyploidy
49. Giemsa
50. Karyotype

- 1. Who gave the theory of path coefficient? (a) Sewall Wright (b) Fisher (c) Haldane (d) Hazel
- 2. Name the scientist who defined selection as "differential reproductive rate" ? (a) Hazel (b) Lush (c) Lerner (d) Falconer
- 3. Heritability of a trait is given by (a) r_{AP} (b) b_{AP} (c) b_{GP} (d) none of above
- 4. Inbreeding coefficient (F) in the first generation when half sibs are bred is (a) 0 (b) 0.062 (c) 0.125 (d) 0.250
- 5. Inbreeding coefficient (F) through full sib (brother X sister) mating reaches > 0.986 after how many generations (a) 10 (b) 15 (c) 20 (d) none of the above
- 6. Variance of change in gene frequency after one generation of sampling is (a) $\frac{1}{2}N(p_0q_0)^2$ (b) $p_0q_0/2N$ (c) $1 - p_0q_0$ (d) none of the above
- 7. Response is not a function of (a) Selection intensity (b) Mean of the trait (b) phenotypic standard deviation of trait (d) h^2 of the trait
- 8. Individual merit and family merit as basis of selection was proposed by _____ (a) Hazel and Lush (b) Hazel (c) Lush (d) Lerner
- 9. Another name of selection intensity is _____ (a) Standardized selection differential (b) Weighed selection differential (c) Selection differential (d) Selection coefficient
- 10. Selection procedure not widely used in poultry breeding is _____ (a) Individual selection (b) family selection (c) progeny testing (d) sib selection
- 11. The selection index method was introduced in animal breeding by _____ (a) Lush (b) Smith and Hazel (c) Lerner (d) Comstock
- 12. A locus will contribute to a change of mean value on inbreeding only if _____ (a) Dominance is absent (b) There is epistasis (c) There is partial dominance (d) Dominance is not zero
- 13. The covariance of the mean of the offspring and the mid parent is _____ (a) VA (b) $\frac{1}{2}VA + \frac{1}{4}VD$ (c) $\frac{1}{2}VA$ (d) VG
- 14. Intra-sire regression of offspring on dam estimates (a) heritability (b) repeatability (c) half of heritability (d) twice the heritability
- 15. By increasing the intensity of selection, breeder can increase the _____ (a) response per unit time (b) response per generation (c) realized response (d) realized heritability
- 16. The occurrence of heterosis on crossing is dependent on (a) non-directional dominance (b) directional dominance (c) presence of dominance (d) presence of heterotic genes
- 17. A measure of variation which is correlated with the mean is _____ (a) variation (b) standard deviation (c) coefficient of determination (d) coefficient of variation
- 18. The mean performance of line when expressed as the deviation from the mean of all crosses is called _____ (a) G.C.A of line (b) S.C.A of line (c) G.C.A and S.C.A of line (d) Average effect of the line
- 19. Reciprocal recurrent selection (RRS) is used to improve (a) only G.C.A (b) only

- S.C.A (c) Both G.C.A and S.C.A (d) None
20. Reciprocal recurrent selection was first proposed by _____ in 1949 (a) Comstock, Robertson and Harvey (b) Comstock, Robinson and Harvey (c) Croas, Robertson and Fisher (d) Comstock, Lush and Hazel
21. What increases or decreases the chance of fixation of a new mutant (a) Crossbreeding (b) Random drift (c) Selection (d) Inbreeding
22. Variance due to general combining ability arises due to (a) VA + VAA+ VAD (b) VA + VAA+ VD (c) VA + VAA+ VDD (d) VA + VAA+ VAAA
23. If the frequency of recessive gene in a population is 0.10, then what would be the frequency of this recessive gene after 4 generations of selection in which all recessive homozygotes are discarded (a) 0.001 (b) 0.071 (c) 0.005 (d) 0.021
24. The ratio of response to selection to selection differential is the: (a) degree of genetic determination (b) heritability in broad sense (c) realized heritability (d) heritability in narrow sense
25. When response to selection has ceased, the population is said to be at (a) zero response (d) selection limit (c) Response limit (d) no response
26. The maternal effect may show an asymmetry of response associated with (a) genes derived from dam (b) maternal component of the trait (c) Traits governed by xx chromosomes (d) traits governed by females hormones
27. If additive gene action is most important for a trait, the best and simplest basis of selection is: (a) pedigree selection (b) individual selection (c) progeny testing (d) none
28. If the environmental and genetic effects of a trait are different to distinguish the individual selection is: (a) advantageous (b) disadvantageous (c) equally efficient to other methods (d) none
29. In an analysis of half sib families the component of covariance between sire is: (a) $1/2 COVA$ (b) $1/4 COVA$ (c) $3/4 COVA$ (d) $COVAB$
30. Precision of heritability estimate depends on its: (a) standard error (b) coefficient of variation (c) sampling variance (d) all the above
31. The panmictic index at tth generation is (a) $P_t = (1+\Delta f)^t P_0$ (b) $P_t = (1-\Delta f)^t P_0$ (c) $(1-\Delta f)^{t-1} P_0$ (d) none above
32. Highest genetic gain can be achieved by accurate estimation of breeding value by (a) sires of dams (b) dams of sires (c) sires of sires (d) dams of dams
33. For predicting breeding value of a cow on basis of information on itself, its dam and paternal halfsibs we use _____ (a) Analysis of variance technique (b) Maximum likelihood technique (c) Multiple correlation technique (d) Multiple regression technique
34. Family selection is better than individual selection when interclass correlation of phenotypic values is _____ (a) zero (b) 0.5 (c) >0.5 (d) <0.5
35. Faster rate of genetic improvement can be achieved in (a) dairy cattle for milk production (b) sheep for lamb production (c) Pig for litter size (d) broilers for growth rate
36. In case of multiple trait selection, as compared to intensity of selection for each of the trait separately for 'n' traits under simultaneous selection, the selection intensity for combined selection would decrease by (a) n times (b) $1/n$ times (c) $1/\sqrt{n}$ times (d) $2n$ times
37. If fixed number of sires are tested under farm progeny testing, the improvement in management practices in cows will improve _____ (a) intensity

- of selection of sires (b) accuracy of selection of sires (c) Selection differential of sires (d) none
38. The correlated response obtained for a trait when selection is done on another trait is due to _____ (a) Linkage effect (b) pleiotrophic effect (c) epistatic effect (d) dominance effect
39. Hardy Weinberg law was formulated in the year (a) 1809 (b) 1908 (c) 1918 (d) 1928
40. Repeatability sets an upper limit to (a) VA/VP (b) VG/VP (c) both above (d) VA/VD
41. In a population under H-W equilibrium, the maximum genotype frequency of heterozygote will be observed when the frequency of dominant gene is (a) 0.4 (b) 0.5 (c) 0.6 (d) 0.25
42. The genetic covariance of full sib is (a) $1/2 VA$ (b) $1/4 VA$ (c) $1/2 VA + 1/4 VD$ (d) $1/2 VA + 1/2 VD$
43. Number of generations 't' required to change the gene frequency from q_0 to q_t is _____ (a) $q_t - q_0$ (b) $2(q_t - q_0)$ (c) $1/q_t - 1/q_0$ (d) none above
44. if 'L' is the load borne by the population, the average fitness of the population is _____ (a) $1-L$ (b) $L-1$ (c) $1/L$ (d) none
45. If gene frequency in migrants is the same as that in the groups from and to which they go, migration affects: (a) quality of population (b) no. of population (c) neither quality nor number (d) both quality and number
46. If 25% have the recessive phenotype (aa) and the population is in equilibrium with respect to this locus, then q is _____ (a) 0.25 (b) 0.5 (c) 0.75 (d) 1.00
47. The difference between the genotype value (G) and the breeding value (A) of a particular genotype is _____ (a) dominance deviation (b) no dominance (c) directional dominance (d) none of the above
48. The quantitative traits are governed by genes having large phenotypic effects are called (a) quantitative genes (b) major genes (c) minor genes (d) polygenes
49. The correlation between breeding values and phenotypic values is equal to the square root of _____ (a) repeatability (b) regression (c) response (d) heritability
50. The resemblance between offspring and parents provide the basis for (a) discrete breeding (b) inbreeding (c) random breeding (d) selection breeding
51. selection brings about many changes in the population. The ultimate interest of the breeder may be in _____ (a) change in gene frequency (b) change in population mean (c) change in variation (d) extruding the range of traits
52. The sum of the additive or average effects for all loci influencing a trait is referred as (a) additive genetic variance (b) average breeding value (c) dominance variation (d) epistatic variation
53. Sibs selection is recommended for (a) sex linked traits (b) sex limited traits (c) sex influenced traits (d) none of the above
54. The first progeny testing scheme was launched in India during first five year plan at: (a) Hissar (b) Karnal (c) Ludhiana (d) Anand
55. The BLUP method for sire evaluation was suggested by _____ (a) Lush (b) Henderson (c) S. Wright (d) Fischer
56. Nili-Ravi breed of buffalo is formed in (a) Punjab (b) Maharashtra (c) UP (d) Gujarat
57. Project directorate on cattle was established in _____ (a) 1990 (b) 1985 (c)

1987 (d) 1986

58. Equal parent index (EPI) is an expression of: daughter production (a) higher than sire and dam production (b) lower than sire and dam production (c) half way between sire and dam production (d) equal to sire and dam production

59. Variation without natural discontinuities is called continuous variation and character that exhibit it are called (a) metric character (b) correlated character (c) neutral character (d) balanced character

60. The precision of heritability estimate is known by the _____ (a) standard error (b) magnitude (c) method of estimation (d) experimental design

61. The description of the covariance, applicable to any sort of relationship is (a) between half and full sibs (b) between offspring and mid parent (c) between offspring and one parent (d) all the above

62. Sire intra-class correlation (t) is _____ times of h^2 variance (a) $1/2$ (b) $1/4$ (c) 1 time (d) none above

63. Disruptive process change gene frequency in a manner predictable in _____ (a) amount only (b) direction only (c) both (d) none

64. The strength of selection is expressed as (a) coefficient of selection (b) response to selection (c) selection differential (d) none

65. if 's' is the coefficient of selection then the relative fitness of the genotype selected against is : (a) S (b) $1-S$ (c) $S/2$ (d) none

66. Genetic drift in small population is an example of _____ (a) systematic process (b) dispersive process (c) none of the above

67. Degree of genetic determination is (a) h^2 in narrow sense (b) h^2 in broad sense (c) additive variance (d) none

68. When repeatability is low, multiple measurements gives _____ gain in accuracy (a) large (b) a little (c) none

69. The proportion of phenotypic variation expressed by repeatability is (a) permanent genetic variance (b) permanent environmental variance (c) both (d) special environmental variance

70. The regression of offspring and one parent (bop) is given by _____ (a) VA/VP (b) $1/4 VA/VP$ (c) $1/2 VA/VP$ (d) $3/4VA/VP$

- Answers

- 1.a
- 2.b
- 3.b
- 4.c
- 5.c
- 6.b
- 7.b
- 8.c
- 9.a
- 10.c
- 11.b
- 12.d
- 13.c
- 14.c

15.b
16.b
17.d
18.a
19.c
20.b
21.c
22.d
23.b
24.c
25.b
26.b
27.b
28.b
29.b
30.c
31.b
32.c
33.d
34.c
35.d
36.c
37.b
38.b
39.b
40.c
41.b
42.c
43.c
44.a
45.c
46.b
47.a
48.b
49.d
50.d
51.b
52.b
53.b
54.a
55.b
56.a
57.c
58.c
59.a
60.a
61.d
62.b

63.a
64.a
65.b
66.b
67.b
68.a
69.c
70.c

- The term 'genetics' was coined by- Bateson (1906). • Theory of germplasm was introduced by- August Weisman. • Mendel studied the inheritance of seven different pairs of contrasting characters. • % of homozygous offsprings in F2 generation of monohybrid cross is – 50 • The terms 'genotype' and 'phenotype' coined by- Johanssen • Test to assess whether the individuals are showing dominant character due to homo or heterozygosity- Test cross • Universally accepted Mendel's law is- Law of Segregation • The term 'heterosis' was coined by- Shull (1910) • Genes that influence more than one phenotype trait is called –Pleiotropic genes. • Phenotypic ratio in incomplete dominance is – 1:2:1 • Dominance involves intragenic gene suppression while epistasis involve intergenic suppression. • 'Yellow' in mice is an example of- dominant lethal condition • Genotype that is a carrier for sickle cell anemia is – Hb A /Hb

S • Expression of ancestral traits is termed as – Atavism. • Qualitative characters like coat color, blood group etc. shows discontinuous variation, where as quantitative traits like height, weight etc. shows continuous variations. • Alternative form of a normal gene is called- Allele • Coat color in rabbits is an example of- Multiple allelism. • Number of linkage groups in an organism is equal to no: of chromosome pairs. • Theory of linkage and concept of sex linked inheritance was proposed by Thomas Hunt Morgan • Rediscoverer's of Mendelian genetics was- Tschermack, Correns and Devries. • Complete linkage is seen in – Male Drosophila • Sex-linked genes for hemophilia and colorblindness in man are examples of Incomplete linkage • Strength of linkage is inversely proportional to the distance between the genes and the strength is reduced by temperature and X-rays • Crossing over occurs between non-sister chromatids of homologous pairs of chromosomes. • Chances of crossing over more if genes are located- farthest • 'Crossing over' takes place at the tetrad stage of meosis. • Cell division

characterized by splitting of nucleus followed by that of cytoplasm is called – Amitosis. • Spindle formation inhibition and arresting the cells in metaphase are done by colchicine. • Examples of mitotic poison- Colchicine, Ribonuclease and Mustard gas. • During meiosis, pairing of chromosomes occur at Zygotene stage • From one spermatocyte 4 haploid spermatids are formed where as one oocyte forms single ovum. • The term 'Chromosome' was coined by - Waldeyer • Chromosomal basis of heredity was proposed by- Walter. S. Sutton. • Chromosome with centromere in terminal position is called- Acrocentric. • Chromosomes with subterminal centromere is called- Telocentric (J-shaped) • Interphase chromosomes which are large and visible with naked eye are called Polytene chromosomes. • 'Cri-du-chat' or 'Cat cry syndrome' is caused by deletion in the short arm of 5 th chromosome • Interchange of chromosome segments in non-homologous chromosomes is called Translocation • The method devised by Muller for detecting X-linked mutations in Drosophila is – CIB method. • Classical experiments on

Neurospora crassa was performed by- Beadle and Tatum. • Substitution of a purine by a pyrimidine is called- Transversion • Changes that involve replacement of one purine in a polynucleotide chain by another purine is called- Transitions • Alkylating agents capable of causing mutations are- Ethyl methane sulphonate and Methyl methane sulphonate. • Mutations caused by addition or deletion of nitrogenous based in the DNA or mRNA are known as- Frame shift mutation. • In interphase, nucleus of cells in females a dark stained chromatin mass is observed called- Barr body. Courtesy:

- 1. Germ Plasm theory was postulated by
 - a) Lamark
 - b) Weisman
 - c) Kolliker
 - d) Hertwig
- 2. The ability of a given gene or gene combination to be expressed phenotypically to any degree
 - a) Penetrance
 - b) expressivity

- c) pleiotropism
- d) prepotency
- 3) Linkage group in swamp buffalo
 - a) 25
 - b) 30
 - c) 24
 - d) 26
- 4. Total number of genotypes in human ABO blood group system
 - a) 3
 - b) 12
 - c) 6
 - d) 4
- 5. Eye colour in drosophila is an example of
 - a) Sex linked inheritance
 - b) sex limited inheritance
 - c) sex influenced inheritance
 - d) incomplete dominance
- 6. If the X/A ratio is 0.5, the individual will be
 - a) Intersex
 - b) normal female
 - c) super female
 - d) normal male
- 7) Total number of barr bodies in an individual

with Turner's syndrome

a) 0

b) 1

c) 2

d) none of the above

- 8. In translocation, the exchange of chromosomal segments occurs
 - a) Within the same chromosome
 - b) between homologous chromosomes
 - c) between non homologous chromosomes
 - d) both b and c

- 9. If a woman heterozygous for colour blindness marries a colour blind man, what is the probability that their first child will be colour blind daughter?
 - a) 50%
 - b) 25 %
 - c) 75%
 - d) 100%

- 10. If the centromere is located close to the end, and giving a very short arm and an exceptionally long arm, the chromosome is called
 - a) acrocentric
 - b) telocentric

- c) submetacentric
- d) none of the above

- 11. Shortest phase in mitosis is
 - a) prophase
 - b) anaphase
 - c) metaphase
 - d) telophase
- 12. Soluble RNA (sRNA) is
 - a) tRNA
 - b) rRNA
 - c) mRNA
 - d) mitochondrial RNA
- 13. The theory of epigenesis was proposed by
 - a) K.F. Wolf
 - b) Charles Darwin
 - c) Swammerdam
 - d) Kolliker
- 14. Phenotypic F₂ ratio of duplicative recessive epistasis (complementary gene interaction) is
 - a) 12:3:1
 - b) 9:7
 - c) 9:6:1
 - d) 9:3:3:1

- 15. Source of energy in nucleus is
 - a) glycolysis only
 - b) TCA cycle only
 - c) both a and b
 - d) none of the above
- 16. Crossing over taking place at
 - a) mitosis
 - b) meiosis II
 - c) meiosis I
 - d) all of the above
- 17. Xanthine is deaminated product of
 - a) adenine
 - b) thymine
 - c) cytosine
 - d) guanine
- 18. The types of phenotypes in F2 generation is
 - a) $2n$
 - b) $3n$
 - c) n^2
 - d) n^3
- 19. Sum total of genes in a population is
 - a) genotype
 - b) karyotype
 - c) gene pool

d) gene frequency

- 20. Rho factor is required for the termination of
 - a) Replication
 - b) transcription
 - c) translation
 - d) transversion
- 21. The types of histone proteins present in eukaryotic chromosome are
 - a) 4
 - b) 5
 - c) 6
 - d) 7
- 22. The classical test cross ratio in dihybrid is
 - a) 7:1:1:7
 - b) 1:7:7:1
 - c) 1:1:1:1
 - d) both a and b
- 23. Chromatin consists of
 - a) DNA & protein only
 - b) RNA & protein only
 - c) RNA & protein only
 - d) DNA, RNA & protein
- 24. Chromosome number of domestic pig is

- a) 38
- b) 78
- c) 62
- d) 54

- 25. Epistasis is type of interaction
 - a) inter allelic
 - b) intra allelic
 - c) allelic genetic
 - d) both a and c
- 26. Sickle cell anemia is due to point mutation, in which
 - a) glu. is replaced by val.
 - b) val. is replaced by glu.
 - c) his. is replaced by val.
 - d) val. is replaced by his. (Note: val-valine, glu-glutamic acid)
- 27. MN blood group system in humans is an example of
 - a) multiple allelism
 - b) co dominance
 - c) incomplete dominance
 - d) pleiotropism
- 28. If the number multiple alleles for a trait is 5, then what is the total number of genotypes
 - a) 9

b) 16

c) 12

d) 15

- 29. Chromosome theory of linkage was proposed by
 - a) Beadle and Tatum
 - b) Bateson and Punnett
 - c) Morgan and Castle
 - d) Sutton and Boveri
- 30. Barred condition in poultry is an example of
 - a) sex linked inheritance
 - b) sex limited inheritance
 - c) multiple allelism
 - d) sex influenced inheritance

- ANSWERS A:

- 1.b 2.a 3.c 4.c 5.a 6.d 7. a 8.c 9.b 10.a 11.b
12.a 13.a 14.b 15.a 16.c 17.d 18.a 19.c 20.b
21.b 22.c 23.d 24.a 25.a 26.a 27.b 28.d 29.c
30.a

- PART.B:ANIMAL BREEDING

- 1. Quantitative traits are controlled by
 - a) major genes
 - b) minor genes

- c) poly genes
- d) both b and c
- 2. Breeding value(BV) is
 - a) equal to the TA
 - b) twice the TA
 - c) 1/2 of TA
 - d) 1/4 of TA
- 3. Heritability in narrow sense is
 - a) V_A/V_P
 - b) V_E/V_P
 - c) V_G/V_P
 - d) V_A+V_G/V_P
- 4. Repeatability value set inof heritability
 - a) lower limit of h^2
 - b) upper limit of h^2
 - c) intermediate of h^2
 - d) both a and b
- 5. The most effective method of selection
 - a) mass selection
 - b) pedigree selection
 - c) progeny testing
 - d) selection index
- 6. Quantitative traits shows

- a) continuous variation
- b) discontinuous variation
- c) both a and b
- d) none of the above

- 7. Genotypic frequency of progeny depends on
 - a) genotypic freq. of parent
 - b) genotypic freq. of population
 - c) gene freq. of parent
 - d) both a and c
- 8. In a population sex linked genes are carried by homogametic sex isof the total sex linked genes in the population
 - a) $1/2$
 - b) $1/4$
 - c) $1/3$
 - d) $2/3$
- 9. Type of gene action in general combining ability (GCA) is
 - a) additive
 - b) non additive
 - c) both a and b
 - d) none of the above
- 10. Range of h^2 and fitness is
 - a) 0 to 1

b) -1 to +1

c) 0 to infinity

d) 0 to xn

- 11. The proportion of population which shows genetic death is
 - a) genetic sterility
 - b) genetic linkage
 - c) genetic load
 - d) genetic drift
- 12. For inbreeding, mated individuals should have common ancestors with in
 - a) 2-3 generations
 - b) 4-6 generations
 - c) 6-7 generations
 - d) more than 10 generations
- 13. Inbreeding coefficients of progenies produced by self mating, parent offspring mating, full sibs and half sibs are in the order
 - a) 1,0.5,0.25,0.125
 - b) 0.5,0.5,0.25,0.125
 - c) 1,0.5,0.5,0.25
 - d) 0.5,0.25,0.25,0.125
- 14. Hissardale is the cross of
 - a) Merino ewe x Bikaneri ram
 - b) Lincoln ram x Rambouillet ewe

- c) Merino ram x Bikaneri ewe
- d) Lincoln ewe x Rambouillet ram

- 15. In the second generation, hybrid vigor will be
 - a) same as the first
 - b) doubled the first
 - c) half of the first
 - d) none of the above
- 16. Crossing of two inbred lines of the same breed is
 - a) Incrossing
 - b) Incross breeding
 - c) top incrossing
 - d) top incross breeding
- 17. The intensity of selection depends with number traits considered 'n' is
 - a) $1/n$
 - b) $1/n^2$
 - c) n
 - d) $1/\sqrt{n}$
- 18. Non additive gene action include,
 - a) epistasis
 - b) dominance
 - c) interaction
 - d) all of the above

- 19. Mildest form of out breeding is
 - a) Cross breeding
 - b) close breeding
 - c) out crossing
 - d) rotational crossing
- 20. The dispersive process mainly occurs in small population in which,
 - a) only direction can be predicted not amount
 - b) only amount can be predicted not direction
 - c) both amount and direction can be predicted
 - d) direction and amount cannot be predicted
- 21. The contribution of offspring to the next generation is called
 - a) fitness
 - b) adaptive value
 - c) selective value
 - d) all of the above
- 22. Genotypic correlation is due to
 - a) polymorphism
 - b) linkage
 - c) pleiotropism
 - d) both b and c
- 23. Carcass quality and quantity is an example of
 - a) non additive gene interaction

- b) additive gene interaction
 - c) both a & b
 - d) none of the above
- 24. In MN blood group system, genotypes are MM = 153, MN = 260, NN = 87, then the gene frequencies of M and N alleles are
 - a) 0.64, 0.36
 - b) 0.5, 0.5
 - c) 0.566, 0.434
 - d) 0.518, 0.482
 - 25. A new breed can be evolved by
 - a) out crossing
 - b) cross breeding
 - c) grading up
 - d) none of the above
 - 26. If the coefficient of selection is 0.25, then the fitness is
 - a) 1
 - b) 0.25
 - c) 0.75
 - d) 0.5
 - 27. Father of modern animal breeding
 - a) Robert Bakewell
 - b) S. Wright
 - c) J.L. Lush

d)Gauss

- 28. Reproductive traits in animals usually follow type h^2
 - a) High
 - b) medium
 - c) low
 - d) none of the above
- 29. The goat breed, toggenberg originated from
 - a) Spain
 - b) Denmark
 - c) Switzerland
 - d) France
- 30. Grading up produces pure breed in how many generations
 - a) 2-4
 - b) 4-5
 - c) 10-12
 - d) 7-8
- Answers B:
1.d 2.b 3.a 4.b 5.c 6.a 7.c 8.d 9.a 10.a 11.c
12.b 13.d 14.c 15.c 16.a 17.d 18.d 19.c 20.b
21.d 22.d 23.b 24.c 25.b 26.c 27.c 28.c 29.c 3