DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet Series

A

T. B. C. : VS-2-2019/20

TEST BOOKLET

SPECIAL RECRUITMENT TO VETERINARY ASSISTANT SURGEON
PAPER – II
(ANIMAL SCIENCE)

Sl. No. 2013

Time Allowed : 2½ Hours

Maximum Marks : 400

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C** OR **D**, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. **YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO. TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.**
5. This Test Booklet contains **200** items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided by **using BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet.
8. Before you proceed to mark (darken) in the Answer Sheet the responses (answers) to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the *Answer Sheet* issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

SEAL

1. Oxidation of which substance in the body yields the most calories ?

(A) Glucose

(B) Glycogen

(C) Protein

(D) Lipids

2. Milk is deficient of which mineral ?

(A) Phosphorus

(B) Sodium

(C) Iron

(D) Potassium

3. Which one is the heaviest particulate component of the cell ?

(A) Nucleus

(B) Mitochondria

(C) Cytoplasm

(D) Golgi apparatus

4. The average pH of Urine is :

(A) 7.0

(B) 6.0

(C) 8.0

(D) 4.0

5. The sugar found in RNA is

(A) Ribose

(B) Deoxyribose

(C) Ribulose

(D) Erythrose

6. Lactate formed in muscles can be utilized through :

(A) Rapoport-Luebeling cycle

(B) Glucose-Alanine cycle

(C) Cori's cycle

(D) Citric acid cycle

7. When O_2 supply is inadequate, pyruvate is converetd to :

(A) Phosphopyruvate

(B) Acetyl CoA

(C) Lactate

(D) Alanine

8. Deficiency of vitamin C causes :

(A) Beriberi

(B) Pellagra

(C) Pernicious Anaemia

(D) Scurvy

9. Sulphur containing amino acid is :

(A) Methionine

(B) Leucine

(C) Valine

(D) Asparagine

10. Trypsinogen is converted to acitive trypsin by :

(A) Enterokinase

(B) Bile salts

(C) HCl

(D) Mg^{++}

11. Protein content of cow's milk is about :

(A) 2.5%

(B) 3.5%

(C) 4.5%

(D) 5.5%

12. The main site of urea synthesis in mammals is :

(A) Liver

(B) Skin

(C) Intestine

(D) Kidney

13. An enzyme in saliva which hydrolyzes starch is :

(A) Pepsinogen

(B) Chymotrysin

(C) α-Amylase

(D) Malate

14. Multiple forms of the same enzymes are known as :

(A) Zymogens

(B) Isoenzymes

(C) Proenzymes

(D) Pre-enzymes

15. The energy required to start an enzymatic reaction is called :

(A) Chemical Energy

(B) Metabolic Energy

(C) Activation Energy

(D) Potential Energy

16. In biosynthesis of proteins, the chain terminating codons are :

(A) UAA, UAG and UGA

(B) UGG, UGU and AGU

(C) AAU, AAG and GAU

(D) GCG, GCA and GCU

17. The first protein synthesized by recombinant DNA technology was :

(A) Streptokinase

(B) Human growth hormone

(C) Tissue plasminogen activator

(D) Human insulin

18. Which of the following may be used as a cloning vector ?

(A) Prokaryotic plasmid

(B) Lambda phage

(C) Cosmid

(D) All of these

19. Using written convention which one of the following sequences is complimentary to TGGCAGCCT ?

(A) ACCGTCGGA

(B) ACCGUCGGA

(C) AGGCTGCCA

(D) TGGCTCGGA

20. Metabolic alkalosis can occur in :

(A) Severe diarrhoea

(B) Renal failure

(C) Recurrent vomiting

(D) Excessive use of carbonic anhydrase inhibitors

21. Elevated plasma level of the following projects against atherosclerosis :

(A) Chylomicrons

(B) VLDL

(C) HDL

(D) LDL

22. In early stages of myocardial ischemia the most senstitive indicator is the measurement of the activity of :

(A) CPK

(B) SGPT

(C) SGOT

(D) LDH

23. The predominant cation of plasma is :

(A) Na^+

(B) K^+

(C) Ca^+

(D) Mg^{++}

24. The precursor of bile salts, sex hormones and vitamin D is :

(A) Diosgenin

(B) Cholesterol

(C) Campesterol

(D) Ergosterol

25. The α-cells of pancreas islets produce :

(A) Insulin

(B) Glucagon

(C) Somatostatin

(D) Pancreatic polypeptide

26. Which of the following is an example of an energized nucleotide ?

(A) GMP

(B) dCMP

(C) UMP

(D) dCTP

27. Production of ATP by oxidative phosphorylation is driven by the energy from :

(A) Coenzyme A

(B) Isomerization of the cytochromes

(C) Formation of NADH

(D) Diffusion of protons from the intermembrane space to matrix of mitochodria

28. Tertiary structure of protein does not contain :

(A) Disulphide bonds

(B) Salt linkage

(C) van der Waals bonds

(D) Hydrogen bonds

29. p^{BR322} is a most commonly used :

(A) Plasmid

(B) Cosmid

(C) Bacteriophage

(D) Phage

30. The most commonly used cryoprotectant for cryopreservation of embryos is :

(A) Dimethyl sulfoxide

(B) Diphenyl tetrazolium

(C) Normal saline

(D) None of these

31. Myasthenia gravis is an autoimmune disease in which antibodies damage or destroy which of the following ?

(A) Acetylcholine molecules in the synaptic cleft

(B) Acetylcholine receptors on the muscle membrane

(C) Acetylcholine vesicles in the neuromuscular junction

(D) Acetylcholinesterase molecules in the synaptic cleft

32. Rigor mortis is caused by a decrease in which of the following ?

(A) Acetylcholine

(B) Actin-myosin cross-bridges

(C) Myoplasmic calcium levels

(D) Muscle ATP levels

33. If the sinus node stops discharging, what is the expected heart rate (in beats / min) if the atrioventricular (A-V) node takes over as the cardiac pacemaker ?

(A) 20

(B) 35

(C) 50

(D) 72

34. The velocity of blood flowing through the circulatory system is lowest in which of the following parts of the circulation ?

(A) Venules

(B) Veins

(C) Small arteries

(D) Capillaries

35. Which one of the following can cause the largest increase in blood flow ?

(A) A twofold increase in hematocrit

(B) A twofold increase in arterial pressure

(C) A twofold increase in arteriole diameter

(D) A twofold increase in arteriole resistance

36. A decrease in which one of the following would tend to increase lymph flow ?

(A) Plasma colloid osmotic pressure

(B) Capillary hydrostatic pressure

(C) Interstitial hydrostatic pressure

(D) Interstitial colloid osmotic pressure

37. The second heart sound is associated with which one of the following ?

(A) In-rushing of blood into the ventricles due to atrial contraction

(B) Closing of the atrioventricular (A-V) valves

(C) Closing of the pulmonary valve

(D) Opening of the A-V valves

38. Release of which one of the following substances causes vasodilation during anaphylactic shock ?

(A) Histamine

(B) Bradykinin

(C) Nitric oxide

(D) Adenosine

39. Circulating antibodies are secreted mainly by :

(A) Helper T lymphocytes

(B) Dormant B lymphocytes

(C) Plasma cells

(D) Killer T lymphocytes

40. Which of the following is a function of thrombin ?

(A) Activation of Factor XIII to stabilize fibrinolysis

(B) Conversion of Factor VII to VIIa

(C) Conversion of fibrinogen to fibrin

(D) Enhancement of Factor V, VIII and XI activity

41. Hyperventilation results from :

(A) A decrease in arterial PCO_2 to less than 30 mm Hg

(B) A direct stimulation of the medulla's chemosensitive area by an increase in pH

(C) An increase in alveolar PCO_2

(D) An increase in alveolar PCO_2

42. The largest quantities of solute reabsorption occurs in :

(A) Proximal tubule

(B) loop of Henle

(C) Distal tubule

(D) Collecting duct

43. Ruminants fed with high roughage diet produces more of :

(A) Propionic acid

(B) Acetic acid

(C) Butyric acid

(D) Isobutyric acid

44. The prominent calorigenic hormone of the body is :

(A) Insulin

(B) Glucocorticoids

(C) Sex steroids

(D) Thyroid hormones

45. The hormone that inhibits myometrial contraction during pregnancy is :

(A) Estrogen

(B) Oxytocin

(C) Progesterone

(D) Prolactin

46. The major role of cerebellum is to :

(A) Modulate motor activity

(B) Control consciousness

(C) Act as relay centre to cerebral cortex

(D) Control vital activities

47. Autonomic ganglion cells release which one of the following neurotransmitters ?

(A) Acetylcholine

(B) Norepinephrine

(C) Epinephrine

(D) Dopamine

48. A normal, quiet inspiration is most likely initiated by neurons in which of the following locations ?

(A) Central chemoreceptor region

(B) Dorsal respiratory group

(C) Pneumotaxic center

(D) Ventral respiratory group

49. Panting results in :

(A) Increased alveolar ventilation

(B) Increased tidal volume

(C) Descreased alveolar ventilation

(D) Increased dead space ventilation

50. High doses of antibiotics can destroy the bacterial flora of the large intestine. This can result in impaired :

(A) Absorption of protein

(B) Blood coagulation

(C) Bone resorption

(D) Respiratory control

51. The equine hindgut :

(A) Is a site of volatile fatty acid production

(B) Secretes digestive enzymes which breakdown cellulose and hemicellulose

(C) Microbes produce protein which is absorbed and utilised by the horse

(D) Has multiple pacemaker sites

52. What is the stimulus for the production of erythropoietin ?

(A) Tissue need for O_2

(B) Iron deficiency

(C) No stimulus, but constantly produced

(D) Sympathetic division of ANS

53. In ewes, timing of puberty is determined by :

(A) Nutrition

(B) Hereditary

(C) Photoperiod

(D) Body weight

54. Which one of the following is not caused by defective GH secretion ?

(A) Dwarfism

(B) Acromegaly

(C) Cretinism

(D) Gigantism

55. Capacitation of spermatozoa occur in :

(A) Epididymis

(B) Cervix

(C) Uterus

(D) Seminiferous tubules

56. Camel tolerate heat of deserts because :

(A) Drinks more water

(B) Can pant

(C) Can rise its body temperature

(D) Can sweat profusely

57. Photoperiodism in seasonal breeders is regulated by :

(A) Hypothalamus

(B) Pineal gland

(C) Pituitary gland

(D) Visual cortex

58. Parturient hypoglycemia is due to one of the following action on bone :

(A) Hyperactivity of PTH

(B) Hyperactivity of calcitonin

(C) Temporarily refractive to PTH

(D) None of these

59. The following is the hormones of stress :

(A) GH

(B) Corticosteroids

(C) Insulin

(D) Oxytocin

60. A fremartin is a bovine twin and has :

(A) Sterile female calf

(B) Sterile male calf

(C) Infrequently sterile

(D) Calf without genitalia

61. Which amino acid is considered as the first limiting in farm animals ?

(A) Tryptophan

(B) Lysine

(C) Cystine

(D) Methionine

62. The factor normally used to convert nitrogen to protein in feedstuffs is :

(A) 4.25

(B) 10.00

(C) 8.25

(D) 6.25

63. One Kcal is equal to :

(A) 4.18 kJ

(B) 4.814 kJ

(C) 4.418 kJ

(D) 4.841 kJ

64. Indicate the level of TDS (ppm) in water that is considered as totally unsuitable for the use in any livestock and poultry :

(A) Less than 1000 ppm

(B) 1000-2999 ppm

(C) More than 10000 ppm

(D) 3000-6999 ppm

65. Egg shell is made up mostly of :

(A) $CaCO_3$

(B) $CaHPO_4.2H_2O$

(C) $CaCl_2$

(D) $CaPO_4$

66. Lactic acid cycle is also known as :

(A) Cori cycle

(B) TCA cycle

(C) HMP unit

(D) Gluconeogenesis

67. Loss of energy through methane production in ruminants is to the tune of :

(A) 7%

(B) 15%

(C) 20%

(D) 25%

68. Ketosis in ruminants occurs as a result of great demand that is not met :

(A) Protein

(B) Fat

(C) Glucose

(D) Water

69. Fatty liver kidney syndrome in broilers is due to the deficiency of :

(A) Folic acid

(B) Protein

(C) Lipases

(D) Biotin

70. For chicks, one of the following amino acids is not considered as essential :

(A) Threonine

(B) Lysine

(C) Cysteine

(D) Gylcine

71. Upper safe level of ammonia in rumen contents is :

(A) 20 mg/dl

(B) 80 mg/dl

(C) 120 mg/dl

(D) 200 mg/dl

72. Bone meal is rich in :

(A) Calcium only

(B) Phosphorus only

(C) Both Calcium and Phosphorus

(D) None of these

73. The transport of copper into haemoglobin is through :

(A) Cytochrome

(B) Tyrosinase

(C) Transferin

(D) Myoglobin

74. Vitamin E has the property of :

(A) Antioxidant

(B) Hydrogenation

(C) Oxidant

(D) Antimicrobial

75. Rock phosphate is rich in mineral that causes egg breakage :

(A) Cl

(B) Br

(C) FI

(D) Pb

76. The normal unit of expression of vitamin is :

(A) PPM

(B) PPB

(C) IU

(D) %

77. Curled toe paralysis is a symptom in chicks due to the deficiency of :

(A) Thiamine

(B) Riboflavin

(C) Mycotoxin

(D) B12

78. The hormone that has sulphur in it is :

(A) Insulin

(B) PTH

(C) Calcitonin

(D) FSH

79. The mineral that is very important for protecting cell integrity against free radicals :

(A) Cu

(B) Fe

(C) Mn

(D) Co

80. Ergosterol is a provitamin of :

(A) Vitamin A

(B) Vitamin E

(C) Vitamin D

(D) Vitamin B12

81. The cheap method of preparation of feed is :

(A) Mash

(B) Extrusion

(C) Pelleting

(D) Popping

82. Calcium level in commercial layer feed should be :

(A) 3.5%

(B) 1.0%

(C) 0.5%

(D) 5.0%

83. Underfed animals during their early growth, will later develop a unique property of :

(A) Compensatory growth

(B) Increased net feed efficiency

(C) High voluntary feed intake

(D) All of these

84. Forage quality is determined from its :

(A) Protein content

(B) Digestibility content

(C) Protein and digestibility content

(D) Vitamin content

85. Growth in poultry is critically decided by :

(A) Protein

(B) Energy

(C) Protein / Energy ratio

(D) Feed intake

86. Egg shell quality deteriorated by high ambient temperature is due to :

(A) Reduced bicarbonate supply

(B) Reduced calcium supply

(C) Reduced CO_2 supply

(D) Reduced activity of shell gland

87. Efficiency of milk production is determined by :

(A) Genetic ability

(B) Current nutritional status

(C) Nutrition received at growing stage

(D) All of these

88. One of the following increases milk fat to the maximum :

(A) Butyric acid

(B) Acetic acid

(C) Propionic acid

(D) Valeric acid

89. In monogastric animals the quantity of feed intake is greatly influenced by :

(A) Energy content

(B) Protein content

(C) Mineral content

(D) Vitamin content

90. Feed required for maintenance is low in :

(A) Meat animals

(B) Milch animals

(C) Egg laying animals

(D) Pregnant animals

91. More than two alternate forms of the same gene occupying a locus is called :

(A) Alleles

(B) Allelomorph

(C) Multiple alleles

(D) None of these

92. Sex limited trait is expresses in :

(A) Only in males

(B) Only in females

(C) Both sexes

(D) Only in one sex

93. An allele with low frequency will be more predominant in :

(A) Homozygotes

(B) Heterozygotes

(C) Lethal genes

(D) None of these

94. Genes controlling different characters if located on the same chromosome move together during gametogenesis. This is called :

(A) Complete linkage

(B) Incomplete linkage

(C) Crossing over

(D) None of these

95. The 2n chromosome complement of sheep :

(A) 54

(B) 60

(C) 50

(D) 64

96. Sudden heritable changes in the genetic material are called :

(A) Migration

(B) Variation

(C) Inbreeding

(D) Mutation

97. Criss-cross inheritance is the property of genes which are :

(A) Y-linked

(B) Sex linked

(C) Sex limited

(D) Autosomes

98. The phenotypic ratio in F_2 of a monohybrid cross will be :

(A) 9 : 3 : 3 : 1

(B) 1 : 2 : 1

(C) 3 : 1

(D) 2 : 1

99. Gametic cells produce mature gametes with n number of chromosomes through :

(A) Mitosis

(B) Meiosis

(C) Linkage

(D) Crossing over

100. A nullisomic individual is represented by :

(A) 2n = 1

(B) 2n = 2

(C) 2n + 1

(D) 2n + 2

101. The contribution of offspring to the next generation is :

(A) Selection coefficient

(B) Fitness

(C) Genetic load

(D) Transmission

102. Hardy-Weinberg law was proposed independently in 1908 by a German physician and a British mathematician :

(A) Wilhelm Weinberg and Godfrey Harold Hardy

(B) Gardner and Simmions

(C) Hugo de Vries and Carl Correns

(D) Gregor Johann Mendel and Erich von Tschermak

103. If p and q are the gene frequencies and P, H and Q are the genotype frequencies in a population in HWE, which of the following is not true ?

(A) p + q = 1

(B) p + 2pq + q = 1

(C) P + H + Q = 1

(D) p2 + 2pq + q2 = 1

104. The frequency of carriers in a population can be estimated by the following formula :

(A) 2q(1 – p)

(B) Qp

(C) 2q(1 – q)

(D) 4pq

105. In a population gene frequencies remain constant if there is :

(A) Random mating

(B) Inbreeding

(C) Out breeding

(D) Selective breeding

106. Assortative mating is a :

(A) Non-random mating

(B) Panmixia

(C) Random mating

(D) Crossbreeding

107. The proportionate reduction in gametic contribution of a particular genotype is :

(A) Adaptive value

(B) Selection coefficient

(C) Genetic load

(D) Variance

108. One of the important evolutionary forces is :

(A) Gene frequency

(B) Genetic equilibrium

(C) Random drift

(D) Genotypic value

109. Repeatability is generally estimated by :

(A) Regression

(B) Halfsib correlation

(C) Intraclass correlation

(D) Fullsib correlation

110. Heritability in narrow sense :

(A) V_A/V_P

(B) V_G/V_P

(C) V_I/V_P

(D) V_E/V_P

111. When better genotypes are given better environment or vice versa, the following will arise :

(A) Correlation between genotype and environment

(B) Heritability

(C) Repeatability

(D) Fitness

112. Two South Indian buffaloes are :

(A) Sambalpuri and Manda

(B) Jerangi and Nagpuri

(C) Mehsana and Surti

(D) Toda and Soult Kanara

113. The exotic breed of pig known for its growth and mothering ability :

(A) Berkshire

(B) Tamworth

(C) Large White Yorkshire

(D) None of these

114. Field progeny testing is mainly done :

(A) To evaluate dairy bulls based on the performance of progeny in the field

(B) To evaluate dams based on the performance of progeny

(C) To evaluate female progeny

(D) To evaluate male progeny

115. Which index is utilized for sire evaluation of farm level and key village level ?

(A) Yappa index

(B) Rice index

(C) Sunderasan index

(D) Mount hope index

116. Sire evaluation is estimated :

(A) Breeding value of Bulls

(B) Breeding value of Progeny

(C) Breeding value of Dam

(D) Breeding value of Progeny and Dam

117. Which of the following techniques has been very much useful in conduct of Field Progeny Testing ?

(A) Ultrasonography

(B) Artificial Insemination

(C) Embryo Transfer

(D) Clonning

118. Which of the following is used for selecting one trait at a time ?

(A) Index method

(B) Independent culling

(C) Tandem method

(D) None of these

119. Heterosis is exploited by :

(A) Crossbreeding of inbred lines

(B) Out breeding

(C) Line breeding

(D) Back cross

120. What is the main difference between the Open Nucleus Breeding Scheme and Closed Nucleus Breeding Scheme ?

(A) Never back to multiplier tier to commercial tier

(B) Never back to commercial tier to multiplier tier

(C) Never back to Nucleus tier from commercial tier

(D) None of these

121. All meat handling equipment should be made up of :

(A) Plastic

(B) Stainless steel

(C) Aluminium

(D) Enamel coated

122. 12D concept is used in _____ of meat.

(A) Freezing

(B) Irradiation

(C) Canning

(D) Curing

123. Ossein can be extracted from :

(A) Bones

(B) Cartilage

(C) Brain

(D) Skin

124. Hyaluronidase is extracted from :

(A) Testis

(B) Lungs

(C) Thymus

(D) Wattles

125. Well done meat is cooked to an internal temperature of _____ degree centigrade.

(A) 66 to 68

(B) 58 to 60

(C) 80 to 82

(D) 100 to 105

126. During line dressing, continuous power system can meet the slaughter rate of _____ cattle per hour.

(A) 10 to 40

(B) 10 to 75

(C) 40 to 120

(D) 50 to 150

127. Time of bruise is estimated by :

(A) TBA value

(B) Halothane test

(C) Bilirubin test

(D) Tyrosine value

128. The contraction of muscle during rigor mortis is due to the information of :

(A) Lactic acid

(B) Splash

(C) Z lines

(D) Actomyosin complex

129. Sodium nitrite is added in meat processing for its activity against _____ bacteria.

(A) Cl. botulinum

(B) S. sureus

(C) Proteus

(D) E. coli

130. The main constituent of white connective tissue is :

(A) Collagen

(B) Fascia

(C) Elastin

(D) Reticulin

131. Marbling refers to deposition of fat as :

(A) Intramuscular

(B) Intermuscular

(C) Subcutaneous

(D) Around kidney

132. The method of packing dressed chicken is known as :

(A) Wrapping

(B) Trussing

(C) Tetrapacking

(D) None of these

133. Water activity in intermediate moisture meats is :

(A) 0.9

(B) 0.6 to 0.85

(C) 0.25 to 0.4

(D) None of these

134. Two most valuable wholesale cuts of pork carcasses are :

(A) Picnic and ham

(B) Loin and ham

(C) Loin and jowl

(D) Side and spare ribs and ham

135. Green rot in egg is caused by :

(A) Pseudomonas

(B) Staphylococcus

(C) Serratia

(D) Cladosporium

136. Most common method of commercial preservation of egg is :

(A) Lime treatment

(B) Cold storage

(C) Oil spray

(D) Water glass

137. Animals should be bled within _____ after electrical stunning to avoid muscle splashing.

(A) 60 sec

(B) 30 sec

(C) 90 sec

(D) 10 sec

138. The characteristic yellow colour of egg yolk is due to :

(A) Carotene

(B) Vitamin-A

(C) Biotin

(D) Xanthophyll

139. Case on systems of dressing is used in :

(A) Cattle

(B) Buffalo

(C) Sheep

(D) Pig

140. Tyrosin value estimates the extent of _____ breakdown in meat.

(A) Fatty acids

(B) Protein

(C) Carbohydrates

(D) Vitamin

141. Lactose percentage of cow milk is :

(A) 4.9%

(B) 7.5%

(C) 6.5%

(D) 2.5%

142. Fat percentage of buffalo milk range from :

(A) 5 to 6

(B) 8 to 9

(C) 2 to 3

(D) 1 to 2

143. Feeding of energy rich diet increases _____ of the milk.

(A) Fat

(B) SNF

(C) Ash

(D) Lactose

144. Feeding of cotton seed produces :

(A) Hard fat

(B) Soft fat

(C) Low melting fat

(D) No change in fat

145. Which one is not the platform test ?

(A) MBRT

(B) SPC

(C) COB

(D) Acidity

146. Acidity of raw milk indicates :

(A) Duration of storage

(B) Temperature of storage

(C) Bacterial load of milk

(D) All of these

147. Long shelf life of UHT milk is due to :

(A) Sterilization

(B) Aseptic packaging

(C) Multilayered package

(D) All of these

148. Which one is acid coagulated milk product ?

(A) Khoa

(B) Panner

(C) Butter

(D) Cream

149. Moisture content of butter should not exceed :

(A) 10%

(B) 16%

(C) 21%

(D) 26%

150. Casein is the byproduct obtained from :

(A) Butter milk

(B) Skimmed milk

(C) Whey

(D) Butter

151. Extension is trying to bring out desirable changes in the _____ of the people.

(A) Knowledge

(B) Skill

(C) Attitude

(D) All of these

152. The fundamental objective of extension is :

(A) Destination man

(B) Development of animals

(C) Development of plants

(D) Scientific Research

153. Extension is concerned with :

(A) School education

(B) Collegiate education

(C) Out of school education

(D) None of these

154. The philosophy of extension is :

(A) Development of individuals

(B) Development of family

(C) Overall development of the society

(D) All of these

155. Grassroots principle of extension underlines :

(A) Top down approach

(B) Bottom up approach

(C) Trickle down approach

(D) None of these

156. Farm and Home visit is helpful in developing _____ among the people.

(A) Attention

(B) Interest

(C) Satisfaction

(D) Action

157. Extension is more concerned with the development of :

(A) Extrinsic motivation

(B) Intrinsic motivation

(C) Material benefits

(D) None of these

158. This method is an ideal one for teaching skills to farmers :

(A) Method demonstration

(B) Result demonstration

(C) Radio Talk

(D) Farm and Home visit

159. A small group of interaction designed to encourage free flow of ideas in an unrestricted basis is known as :

(A) Panel

(B) Forum

(C) Brain Storming

(D) Conference

160. This is a traditional method employed by the villagers in India :

(A) Symposium

(B) Panel

(C) Debate

(D) Tom-tom

161. A systematic display of posters, charts, models, specimens, photographs etc., for viewing to the people is :

(A) Demonstration

(B) Film show

(C) Exhibition

(D) None of these

162. In India, a village's structure and characters are largely determined by :

(A) Ethnic

(B) Linguistic

(C) Religious and Caste composition

(D) All of these

163. Ethnocentrism is a characteristic of :

(A) In-group

(B) Out-group

(C) Reference group

(D) Delegate group

164. Extension officers working in Panchayat Unions are examples for :

(A) Local leaders

(B) Professional leaders

(C) Informal leaders

(D) None of these

165. Innovators are the ones who adopt the latest technologies _____ in the society.

(A) First

(B) Second

(C) Third

(D) Last

166. The five year plans introduced in India is an example for :

(A) Planned change

(B) Social development

(C) Political change

(D) All of these

167. MKIS stands for :

(A) Marketing Knowledge Information System

(B) Marketing Information System

(C) Middleman Knowledge Information System

(D) Middlleman Information System

168. Retailers and wholesalers are called as :

(A) Merchant middlemen

(B) Agent middlemen

(C) Speculative middlemen

(D) All of these

169. The Chairman of Planning Commission is :

(A) Prime Minster of India

(B) President of India

(C) Vice-President of India

(D) Union Agricultural Minister

(Turn ove

163. Ethnocentrism is a characteristic of :

(A) In-group

(B) Out-group

(C) Reference group

(D) Delegate group

164. Extension officers working in Panchayat Unions are examples for :

(A) Local leaders

(B) Professional leaders

(C) Informal leaders

(D) None of these

165. Innovators are the ones who adopt the latest technologies _____ in the society.

(A) First

(B) Second

(C) Third

(D) Last

166. The five year plans introduced in India is an example for :

(A) Planned change

(B) Social development

(C) Political change

(D) All of these

167. MKIS stands for :

(A) Marketing Knowledge Information System

(B) Marketing Information System

(C) Middleman Knowledge Information System

(D) Middlleman Information System

168. Retailers and wholesalers are called as :

(A) Merchant middlemen

(B) Agent middlemen

(C) Speculative middlemen

(D) All of these

169. The Chairman of Planning Commission is :

(A) Prime Minster of India

(B) President of India

(C) Vice-President of India

(D) Union Agricultural Minister

170. Which of the following statements are not true with regard to wants ?

(A) Wants are alternative.

(B) Wants are competitive.

(C) Wants are complimentary.

(D) Wants are unlimited.

171. Which are the statements are true with regard to labour ?

(A) Labour can be separated from the labourers.

(B) The seller or labour must deliver it himself.

(C) Labour is perishable.

(D) Supply of labour changes fastly.

172. Agricultural Technology Information Centres (ATIC) is :

(A) A single window service

(B) To solve location specific problem

(C) Providing information along with inputs

(D) All of these

173. The Amendment which empowered Panchayat Raj Institution :

(A) 27th Amendment

(B) 37th Amendment

(C) 72nd Amendment

(D) 73rd Amendment

174. Communication means exchange of :

(A) Ideas

(B) Facts

(C) Feelings

(D) All of these

175. Anything which capable of satisfy human wants is called as :

(A) Goods

(B) Needs

(C) Goals

(D) All of these

176. Macro economics is also called as :

(A) Theory of consumption

(B) Income theory

(C) Price theory

(D) Demand theory

177. A price at which quantity demanded and quantity supplied in a given time is equal is referred as :

(A) Shadow price

(B) Equilibrium price

(C) Normal price

(D) Market price

178. Egg eating is a condition or habit in poultry which is due to :

(A) Insufficient nest

(B) Irregular collection

(C) Soft and thin shelled eggs

(D) All of these

179. Mareks vaccine is carried out at the age of :

(A) One day old

(B) 5th to 7th day old

(C) 14th day old

(D) 45th day old

180. The White Leghorn Chicken is an exotic breed belongs to the class :

(A) Asiatic

(B) American

(C) Mediterranean

(D) English

181. The level of residual chlorine :

(A) 0.5 -1 ppm

(B) 0.1-0.2 ppm

(C) 1-2 ppm

(D) 5-10 ppm

182. Gangrenous dermatitis in poultry is caused by :

(A) Salmonella species

(B) Aspergillus species

(C) Clostridium species

(D) Eimeria species

183. Flushing in sheep is done :

(A) At the time of breeding

(B) 2-3 weeks prior to onset of breeding season

(C) At late pregnancy

(D) After lambing

184. Dry matter requirement for a goat is (of its body weight) :

(A) 6-8%

(B) 3-4%

(C) 2.5%

(D) 5%

185. Manure pit should be located on _____ side of habitation.

(A) Windward

(B) Leeward

(C) Northern

(D) Western

186. Destruction of pathogenic micro organism from a place is known as :

(A) Disinfection

(B) Disinfestation

(C) Antiseptics

(D) Incineration

187. Average litter size of rat is _____.

(A) 5

(B) 10

(C) 15

(D) 20

188. The rams are allowed to stay with the ewes only during night hours and fed separately during daytime in :

(A) Flock mating

(B) Hand mating

(C) Pen mating

(D) Pasture mating

189. It is ideal to transport laboratory animals in _____ shaped containers.

(A) Square

(B) Rectangular

(C) Cylindrical

(D) Spherical

190. Chemical used for euthanasia of laboratory animals :

(A) Formalin

(B) Diethyl ether

(C) Ethylene oxide

(D) Nitrous oxide

191. In **Oryctolagus cuniculus**, the oestrous cycle is :

(A) Seasonal

(B) Continuous

(C) Annual

(D) None of these

192. In rats, ovulation takes place :

(A) Early oestrus

(B) Spontaneously

(C) Induced ovulator

(D) None of these

193. In rabbits, the young ones are born :

(A) Naked and blind

(B) Born with fur and eyes open

(C) Born with fur but blind

(D) None of these

194. Castrated sheep is known as :

(A) Ram

(B) Crown

(C) Wedder

(D) Buck

195. For pigs watering space should be :

(A) 1/10th of feeding space

(B) 1/5th of feeding space

(C) 1/2 of feeding space

(D) None of these

196. Horse should be approached from :

(A) Near side

(B) Off side

(C) Rear side

(D) Front side

197. Many zebu cattle breeds are said to have entered India from West Asia between :

(A) 2200 and 1500 BC

(B) 1500 and 1200 BC

(C) 3200 and 1500 BC

(D) 1900 and 1500 BC

198. A cow in standing heat will :

(A) Mount over other cow

(B) Accept other cow to mount

(C) Do not allow to mount

(D) Stand alone

199. In wool breeds of sheep, the following statement is correct :

(A) Primary follicles produce wool.

(B) Primary follicles produce hair and very coarse wool.

(C) Secondary follicles are smaller and produce wool.

(D) Both (B) and (C) are correct.

200. The calves should be fed with colostrum :

(A) After 6 hours

(B) After 12 hours

(C) After 24 hours

(D) Positively within 30 minutes after birth

SPACE FOR ROUGH WORK