

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

**COMBINED COMPETITIVE (PRELIMINARY) EXAMINATION, 2010**

Serial No.

**ANIMAL HUSBANDRY AND  
VETERINARY SCIENCE**



**Code No. 02**

*Time Allowed : Two Hours*

*Maximum Marks : 300*

**INSTRUCTIONS**

1. IMMEDIATELY AFTER THE 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.
  2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C OR D** AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE RESPONSE SHEET.
  3. You, have to enter your Roll Number on this  
Test Booklet in the Box provided alongside.  
*DO NOT* write *anything* else on the Test Booklet.
- Your Roll No.  
\_\_\_\_\_
4. This Booklet contains 120 items (questions). Each item comprises *four* responses (answers). You will select *one* response which you want to mark on the Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
  5. In case you find any discrepancy in this test booklet in any question(s) or the Responses, a written representation explaining the details of such alleged discrepancy, be submitted within three days, indicating the Question No(s) and the Test Booklet Series, in which the discrepancy is alleged. Representation not received within time shall not be entertained at all.
  6. You have to mark all your responses **ONLY** on the separate Response Sheet provided. *See directions in the Response Sheet.*
  7. All items carry equal marks. Attempt **ALL** items. Your total marks will depend only on the number of correct responses marked by you in the Response Sheet.
  8. Before you proceed to mark in the Response Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Response Sheet as per instructions sent to you with your Admit Card and Instructions.
  9. While writing Centre, Subject and Roll No. on the top of the Response Sheet in appropriate boxes use **“ONLY BALL POINT PEN”**.
  10. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator only the Response Sheet. You are permitted to take away with you the Test Booklet.

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**ROUGH WORK**

1. Total recognized breeds of buffalo in India :  
(A) 26 (B) 40  
(C) 16 (D) 20
2. Total recognized breeds of goat in India :  
(A) 26 (B) 40  
(C) 16 (D) 20
3. Total recognized breeds of poultry in India :  
(A) 26 (B) 40  
(C) 18 (D) 20
4. Mohair is produced by :  
(A) Bhakarwal (B) Sonadi  
(C) Angora (D) Nali
5. Which one of the following is a dual purpose breed of cattle ?  
(A) Nagore (B) Haryana  
(C) Bachaur (D) Red Sindhi
6. Maximum wool producing country is :  
(A) India (B) New Zealand  
(C) Australia (D) England
7. Indian's contribution to world bovine population :  
(A) 12% (B) 16%  
(C) 25% (D) 24%
8. Indian's contribution to world total milk production :  
(A) 23% (B) 8%  
(C) 20% (D) 50%
9. Which of the following is usually not included in livestock ?  
(A) Cattle (B) Sheep  
(C) Buffalo (D) Poultry

10. Sheep and goat contribution total milk production of world :  
(A) 5.0% (B) 1.6%  
(C) 6.6% (D) 10%
11. CSWRI is located at :  
(A) Makhdoom (B) Avikanagar  
(C) Karnal (D) Dehradoon
12. Which animal contribute maximum to the milk production of India ?  
(A) Goat (B) Buffalo  
(C) Cow (D) Sheep
13. Maintenance type of roughage have DCP :  
(A) 10–20% (B) 6–10%  
(C) 3–5% (D) All of these
14. Productive type of roughage have DCP more than :  
(A) 5% (B) 10%  
(C) 15% (D) 20%
15. The crude protein content of pasture ranges from :  
(A) 3–30% (B) 6–50%  
(C) 10–40% (D) None of these
16. Crude fibre of pasture ranges from :  
(A) 10–15% (B) 20–40%  
(C) 40–60% (D) None of these
17. Starch content in maize is :  
(A) 40% (B) 65%  
(C) 20% (D) 56%
18. Molasses are used in livestock feeding as :  
(A) A source of energy (B) An appetizer and binder for pelleting  
(C) Reduce dustiness of ration (D) All of these

19. Which of the following is Zaid season crop ?  
(A) Maize (B) Jowar  
(C) Barley (D) Oat
20. Concentrate contain TDN more than :  
(A) 20% (B) 50%  
(C) 40% (D) 60%
21. TDN% of cereal grains ranges from :  
(A) 60–50% (B) 70–85%  
(C) 40–30% (D) None of these
22. Toxic level of linseed meal in diet of poultry is :  
(A) 10% (B) 5%  
(C) 15% (D) 20%
23. N.R.C. feeding standard was evolved in :  
(A) U.S.A. (B) U.K.  
(C) Germany (D) France
24. During ensilage process loss of dry matter ranges from :  
(A) 10–15% (B) 2–10%  
(C) 1–5% (D) None of these
25. The specialized structure used for preparation of silage is called :  
(A) Trench (B) Silo  
(C) Tripod (D) None of these
26. The pH of silo-pit is :  
(A) 5% (B) 8%  
(C) 4% (D) 3%
27. Fishmeal, a feed ingredient is richest source of :  
(A) Vitamin A (B) Vitamin C  
(C) Vitamin B<sub>12</sub> (D) None of these
28. Calcium and phosphorus percentage of bone meal is :  
(A) 15% and 20% (B) 15% and 10%  
(C) 30% and 15% (D) None of these

29. The commonly used model of AV used for collection of bull semen is :  
(A) Swedish (B) Danish  
(C) Russian (D) Japanese
30. The most critical temperature at which a cell must survive during freezing and thawing is between :  
(A) 15–35°C (B) 4–15°C  
(C) 4–60°C (D) Below 65°C
31. The most widely accepted method to evaluate thawed semen is :  
(A) Individual motility (B) Sperm cone  
(C) Progressive motility (D) Acrosomal integrity
32. Teasing a bull before semen collection may result in :  
(A) Increased semen volume, whereas reduced sperm conc.  
(B) Increased semen volume, as well as sperm conc.  
(C) Reduced semen volume and sperm conc.  
(D) No effect
33. The site of AI with frozen stallion semen in mares is :  
(A) Intra cervical (B) Intrauterine  
(C) Anterior vagina (D) All of the above
34. The active component of egg yolk which protects the spermatozoa during extending is :  
(A) Methionine (B) Phospholidye choline  
(C) Phospholidyl serine (D) Both (B) and (C)
35. One of the following is not added to the frozen semen because of its toxicity :  
(A) Chloramphenicol (B) Streptomycin  
(C) Sulphonamides (D) Penicillin
36. Extender which can preserve semen at room temperature is :  
(A) Egg yolk citrate (B) CME  
(C) TRIS (D) None

37. In the diluent for freezing semen, cryoprotective action is provided by presence of :
- (A) Lecithine (B) Creatine  
(C) Riboflavin (D) None of the above
38. Yellow colour of Guernsey bull semen is due to :
- (A) Provitamin A (B) Cyanocobalamine  
(C) Riboflavin (D) None
39. The 'Dag defect' spermatozoa is grouped under :
- (A) Primary abnormalities (B) Secondary abnormalities  
(C) Miscellaneous abnormalities (D) None
40. The collection of semen in large number of rams for testing the quality is done only by :
- (A) A.V. method (B) Massage method  
(C) Electric stimulation (D) None
41. Cervix also serves as temporary reservoir for :
- (A) Semen (B) Oocyte  
(C) Embryo (D) Polar bodies
42. Crossing over takes place during which stage of meiosis ?
- (A) Pachytene (B) Zygotene  
(C) Diplotene (D) Leptotene
43. The first scientific basis of heredity was put by :
- (A) Darwin (B) Lamarck  
(C) Mendel (D) Bateson
44. The recognised cattle breeds of M.P. are :
- (A) Nimari, Malwi, Kenkatha (B) Gir, Nimati, Malwi  
(C) Bhadawari, Nimasi, Gir (D) Kankrej, Malwi, Git
45. Common exotic breed of cattle used for improvement of local cattle in M.P. is :
- (A) Holstein Friesian (B) Ayrshire  
(C) Brahman (D) Jersey

46. Characteristic tightly curled horns is found in which buffalo breed ?  
(A) Nili ravi (B) Surti  
(C) Murrah (D) Mehsana
47. The heaviest breed of swine is :  
(A) Landrace (B) Large White Yorkshire  
(C) Berkshire (D) Duroc
48. Which of the following is well known for its black coloured meat ?  
(A) Aseel (B) Kadaknath  
(C) Brahma (D) Leghorn
49. Characteristic “Roman Nose” & “Long Ears” are found in which breed of goat ?  
(A) Jamnapari (B) Beetal  
(C) Barbari (D) Sirohi
50. Most prolific goat breed of India is :  
(A) Jamnapari (B) Beetal  
(C) Barbari (D) Sirohi
51. Best Indian dairy breed of goat is :  
(A) Jamnapari (B) Beetal  
(C) Barbari (D) Sirohi
52. Which of the following is poor man’s cow ?  
(A) Sheep (B) Goat  
(C) Yak (D) Liama
53. When heritability of traits is high, the best basis of selection is :  
(A) Individual (B) Progeny  
(C) Family (D) Pedigree
54. Repeatability is upper limit of :  
(A) Mean (B) Median  
(C) Standard deviation (D) Heritability
55. Chegu breed of goat produces :  
(A) Pashmina (B) Angora  
(C) Mohair (D) None



56. Mating between two breeds alternatively is :  
(A) Incross breeding (B) Line breeding  
(C) Cross breeding (D) Rotational breeding
57. The new breed can be evolved by :  
(A) Grading up (B) Out crossing  
(C) Cross breeding (D) Inbreeding
58. When foreign DNA fragments are introduced into appropriate host cells, such cells are called transformed and process is known as :  
(A) Translation (B) Transduction  
(C) Transformation (D) Transcription
59. Who described operon concept in E-coli ?  
(A) Mendel, Darwin (B) Hugo Clevises, Muller  
(C) Tracis Jacab, Muller (D) Francis Jacab & Jacques Monod
60. The sex determination system in mammal is :  
(A) ZW method (B) XO method  
(C) ZO method (D) XY method
61. In birds the chromosome configuration in female is :  
(A) A+Z (B) A+W  
(C) A+ZW (D) A+ZZ
62. Milker's nodules are caused by :  
(A) Virus (B) Bacteria  
(C) Protozoa (D) Fungi
63. National agencies on microbiological quality control of dairy products are :  
(A) F.A.O. (B) I.S.I.  
(C) American public health association (D) All of above
64. Brucellosis can involve persons engaged with :  
(A) Milk industry (B) Meat industry  
(C) Leather industry (D) All of the above

65. Q-fever agent is frequently found in the following material of infected animals :  
(A) Milk and urine (B) Placenta and spleen  
(C) Blood and sputum (D) All of the above
66. Source of contamination of milk is through which of the following ?  
(A) Infection of milk directly from cow  
(B) Infection from man to cow and then to milk  
(C) Directly by human being  
(D) All of the above
67. Disease transmitted from man to cow is :  
(A) Sore throat and scarlet fever (B) Foot and Mouth Disease  
(C) Gastroenteritis (D) Anthrax
68. The changes produced by acid forming bacteria is :  
(A) Ferment lactose (B) Sour odour and taste  
(C) Curdling of milk (D) All of the above
69. Most of the gas forming bacteria belong to which of the following ?  
(A) *Coliaerogenus group* (B) *Staphylococcus group*  
(C) *Streptococcus group* (D) *Pseudomonas group*
70. Red color of milk produce by which bacteria ?  
(A) *Pseudomonos cynogens* (B) *Seriatia marsecense*  
(C) *Pseudomonas synxatha* (D) None of the above
71. Which virus is related to milk spoilage ?  
(A) Foot and mouth disease virus  
(B) Cow pox virus  
(C) Rabies virus  
(D) All of the above
72. The common milk bacteria grows at :  
(A) 20-40°C (B) 0°C  
(C) 2°C (D) 4°C
73. In comparison to morning milk, fat content of evening milk is :  
(A) Lower (B) Higher  
(C) Equal (D) Not compared

74. The freezing point of milk is about :  
(A)  $- 29^{\circ}\text{C}$  (B)  $- 0.1^{\circ}\text{C}$   
(C)  $- 4.5^{\circ}\text{C}$  (D)  $- 0.55^{\circ}\text{C}$
75. Which of the following milk does not have 8.5% SNF ?  
(A) Toned milk (B) Double toned milk  
(C) Standardized milk (D) Recombined milk
76. Standard fat percentage in toned and double toned milk are respectively :  
(A) 3.5 & 1.5 (B) 1.5 & 3  
(C) 3 & 1.5 (D) 1.5 & 3.5
77. On heating colostrum will :  
(A) Boil (B) Clot  
(C) Evaporate (D) Warm up
78. Effect of addition of fat in milk on specific gravity :  
(A) Decrease (B) Increase  
(C) Irregular (D) No effect
79. In process of pasteurization and sterilization of milk which vitamin get lost ?  
(A) A & D (B)  $B_1$  & C  
(C)  $B_2$  &  $B_{12}$  (D) E & K
80. Green colour of skim milk is due to :  
(A) Carotene (B) Lactochrome  
(C) Casein (D) Fat
81. Freezing point of cow milk ( $^{\circ}\text{C}$ ) :  
(A)  $- 0.531$  (B)  $- 0.538$   
(C)  $- 0.547$  (D)  $- 0.558$
82. Specific gravity of cow milk ranges :  
(A) 1.028 — 1.030 (B) 1.025 — 1.028  
(C) 1.030 — 1.032 (D) 1.032 — 1.034
83. Which constituent of milk is synthesized *denovo* in alveolus epithelia ?  
(A) Lactose (B) Casein  
(C) Fat (D) All of the above

84. Milk of which cattle breed is commonly used for butter making ?  
(A) Ayrshire (B) Jersey  
(C) Holstein (D) Brown-Swiss
85. Which of the following is not a dairy breed ?  
(A) Gir (B) Murrah  
(C) Sahiwal (D) Haryana
86. Modified live vaccines are also called :  
(A) Attenuated vaccine (B) Enactivated vaccine  
(C) Both of these (D) None of these
87. Vaccination of sheep pox virus against Lumpy skin disease is an example of :  
(A) Heterologous virus vaccine (B) Homologous virus vaccine  
(C) Candidate vaccine (D) None of these
88. The antibody which does not participate in vaccine response :  
(A) IgG (B) IgA  
(C) IgD (D) None of these
89. What is subunit used in Rabbit vaccine ?  
(A) Toxin (B) Capsular polysaccharide  
(C) Capsid protein (D) Capsid epitopes
90. Protein used in FMD recombinant DNA vaccine is :  
(A) VP1 (B) Vp4  
(C) Both of these (D) None of these
91. Glucans act as adjuvants by :  
(A) Forming depot (B) Macrophage stimulation  
(C) Lymphocyte stimulation (D) None of these
92. Adjuvant used for Anthrax vaccine :  
(A) Aluminum phosphate (B) Dextran phosphate  
(C) Alum (D) None of these

93. Removal of colloidal impurities is done by :  
(A) Coagulation (B) Screening  
(C) Softening (D) None of these
94. Superchlorination requires chlorine at the dose rate of :  
(A) 0.5 mg/lit (B) 1 mg/lit  
(C) 2 mg/lit (D) 10 mg/lit
95. Rapid sand filters can filter at the rate of :  
(A) 2000-3000 m<sup>2</sup>/hr (B) 3000-4000 m<sup>2</sup>/hr  
(C) 4000-5000 m<sup>2</sup>/hr (D) None of these
96. Filtration rate of slow sand filter is :  
(A) 0.05-0.1m/hr (B) 0.1-0.2m/hr  
(C) 0.5-1m/hr (D) 1-2m/hr
97. MPN is performed in :  
(A) One stage (B) Two stages  
(C) Three stages (D) Four stages
98. Which of the following are greenhouse gases ?  
(A) SO<sub>2</sub> (B) CO<sub>2</sub>  
(C) Methane (D) All the above
99. Viral diseases transmitted by water includes :  
(A) Hepatitis (B) Polio  
(C) Rota viral diarrhea (D) All of these
100. Which one of the following goat breed is said to be the pride of India and is famous for milk production ?  
(A) Barberi (B) Beetal  
(C) Sirohi (D) Jamunapari
101. Which one of the following Indian breed of Cattle gives highest average milk yield ?  
(A) Haryana (B) Ongole  
(C) Tharparker (D) Red Sindhi

102. High temperature short time system of pasteurization is sufficient to destroy common disease producing bacteria in milk at 161 °F in :
- (A) 15 Seconds (B) 30 Seconds  
(C) 40 Seconds (D) 60 Seconds
103. A good detergent for cleaning milk utensils should be :
- (A) Generally acidic (B) Of poor wetting power  
(C) Alkaline (D) Corrosive and toxic
104. In which portion of milk from udder, bacteria content is highest ?
- (A) Secretary phase (B) Fore milk  
(C) Mid milk (D) Stripping
105. The length of estrus cycle in sheep is :
- (A) 17 days (B) 19 days  
(C) 24 days (D) 28 days
106. Infection transmitted to human through milk is :
- (A) *Salmonella* (B) *Listeria*  
(C) *Clostridium* (D) Both (A) and (B)
107. The fat content of egg yolk is :
- (A) 11.5% (B) 32.5%  
(C) 16.5% (D) 22.5%
108. Which of the following is an exotic breed of goats ?
- (A) Beetal (B) Black Bengal  
(C) Angora (D) Surti
109. Which of the following is the Danish breed of swine ?
- (A) Hereford (B) Landrace  
(C) Yorkshire (D) Berkshire
110. Pasteurization of milk by Low temperature long time method is carried out at :
- (A) 60-65 °C for 30 min (B) 60-70 °C for 15 min  
(C) 71-72 °C for 15 sec. (D) 73-75 °C for 20 sec.
111. Milk from which no cream can be separated :
- (A) Frozen milk (B) Homogenised milk  
(C) Fermented milk (D) Soft curd milk

112. The milk fat content of the Khoa should not be less than :  
(A) 20% (B) 30%  
(C) 15% (D) 40%
113. Ordinary souring of milk due to citrate produces :  
(A) Butter (B) Cheese  
(C) Channa (D) Paneer
114. Initially infection of Ranikhet disease results in :  
(A) Greenish diarrhoea (B) Prostration  
(C) Torticollis (D) All the above
115. Fowl pox disease spreads through :  
(A) Contact (B) Through abraded skin  
(C) Both (D) All of the above
116. The birds affected with avian leukosis causes :  
(A) Wattles may be pale (B) Oedema of head  
(C) Cyanosis of muscle (D) All of above
117. Coccidiosis is :  
(A) Self limiting disease (B) Infection disease  
(C) Contagious disease (D) None
118. Cheapest rodenticide used for killing the animal is :  
(A) Phenoxyacetic acid (B) Zinc phosphide  
(C) Para quat (D) Atrazine
119. Following substances used for criminal doping in horses :  
(A) Anabolic steroids (B) CNS stimulants  
(C) Bronchodilators (D) All of above
120. The drug is no longer detectable using standard analytical methods in horse is known as :  
(A) Zero tolerance (B) Cross tolerance  
(C) Acute tolerance (D) None

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