

083/2022

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. As per the basic animal husbandry statistics 2019, the per capita availability of milk in India for the year 2018-19 is :
(A) 337 grams per day (B) 375 grams per day
(C) 355 grams per day (D) 394 grams per day
2. Flock is a group of :
(i) sheep
(ii) goat
(iii) turkey
(A) only (i) and (ii) (B) only (i) and (iii)
(C) Only (ii) and (iii) (D) all of these (i, ii, and iii)
3. Which among the following is not true with respect to an organic farm?
(A) Mostly a self-contained system (B) Less area is required
(C) Yield will be low (D) Animal welfare is important
4. Farming in which different animals and crops are incorporated in such a way that they depend and benefit each other :
(A) Mixed farming (B) Diversification farming
(C) Integrated farming (D) Organic farming
5. Young female pig is called :
(A) Hog (B) Poult
(C) Gilt (D) Pullet
6. A breed of cattle which is also known as Kathiawari :
(A) Gir (B) Deoni
(C) Tharparkar (D) Kankrej
7. The best buffalo breed in terms of milk production is :
(A) Murrah (B) Jaffarabadi
(C) Surti (D) Nili Ravi
8. Breed of pig coloured black with six white spots :
(A) Tamworth (B) Duroc
(C) Hampshire (D) Berkshire

A

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[P.T.O.]

16. A cow is presented with a thorn pierced at the medial aspect of the gum near cheek teeth. Which of the following can be used to examine the area for removing the thorn?
- (A) Wooden mouth gag (B) Drink water's mouth gag
(C) Linton's mouth gag (D) All of these
17. The term 'ventral' indicates :
- (A) Front region of animal (B) Hind region of animal
(C) Upper surface of the body (D) Under surface of the body
18. The patella in cattle is present at the :
- (A) Fetlock joint (B) Knee joint
(C) Stifle joint (D) Hock joint
19. The muscles are attached to the bones by :
- (A) Tendon (B) Cartilage
(C) Ligament (D) Capsule
20. Which of the following statements is not true with respect to ruminant stomach?
- (A) The primary function of omasum is to remove water by about 50%
(B) Pylorus is the terminal part of rumen
(C) Sharp foreign objects in the reticulum may penetrate into the heart easily
(D) None of these
21. Which of the following statements is correct with respect to the reproductive system of bull?
- (A) Leydig cells produce testosterone
(B) Pampiniform plexus aids in temperature control of testes
(C) Vas deferens pass through spermatic cord
(D) All of these
22. Corpus luteum is formed during :
- (A) Oestrum (B) Metoestrus
(C) Dioestrus (D) Proestrus
23. Regarding the mammary system of cow, which of the following statements are true :
- (i) The udder is a modification of sweat gland
(ii) The alveoli are drained by terminal ducts
(iii) Milk secretion is a continuous process
- (A) Only (i) and (ii) (B) Only (i) and (iii)
(C) Only (ii) and (iii) (D) All of these (i), (ii) and (iii)

24. Which of the following statements about female reproduction is correct?
- (A) Pregnancy can be diagnosed by per vaginal examination
 - (B) Cow's uterus is bicornuate
 - (C) Ovarian follicles secrete progesterone
 - (D) None of the above
25. Regarding milking of cows, which of the following is not true :
- (A) Full hand milking simulates suckling by calf
 - (B) Knuckling is a faulty method of milking
 - (C) Stripping is used in high yielding cows
 - (D) None of the above
26. According to BIS, the maximum number of cows that can be housed in a group under loose housing is :
- (A) 40
 - (B) 50
 - (C) 20
 - (D) 30
27. Which is true with respect to the cage system of rearing poultry compared to deep litter system :
- (A) Lesser nuisance from flies
 - (B) More welfare to birds
 - (C) Less chance of egg breakage
 - (D) Less labour is required for management
28. Regarding vermicomposting which of the following statement is wrong :
- (A) Vermicast is low in pathogenic fungi and bacteria
 - (B) It is an odourless, anaerobic process
 - (C) Earthworms ingest about 75% of their body weight in a day
 - (D) The pit for vermi composting should be shallow
29. In a poultry farm the distance between a grower house and a layer house should not be less than :
- (A) 45 m
 - (B) The width of a house
 - (C) 30 m
 - (D) 9 m
30. Which of the following intensive system of rearing poultry produce clean eggs and at the same time comfortable for the birds?
- (A) Cage system
 - (B) Deep lifter system
 - (C) Slat system
 - (D) None of these

31. Which one of the following breeds is not suitable for backyard rearing?
 (A) Athulya (B) Austrowhite
 (C) Gramapriya (D) Rhodowhite
32. Goat breed having higher growth rate and adaptability under Kerala's conditions :
 (A) Crossbred Saanen (B) Selected Malabari
 (C) Boer (D) All of these
33. Bucks may be used for service at an age of :
 (A) 6 – 7 months (B) 8 – 10 months
 (C) 10 – 12 months (D) 7 – 8 months
34. Minimum dry period required for goats is :
 (A) 15 days (B) 60 days
 (C) 30 days (D) 45 days
35. A disease of goats caused by *Clostridium perfringens* :
 (A) PPR (B) Enterotoxaemia
 (C) CCPP (D) Lock jaw
36. Kids below 30 days of age should be given whole milk at the rate of :
 (A) $\frac{1}{6}$ th of their body weight (B) $\frac{1}{10}$ th of their body weight
 (C) $\frac{1}{8}$ th of their body weight (D) $\frac{1}{12}$ th of their body weight
37. Which of the following is not a part of the digestive system of chicken?
 (A) Stigma (B) Cloaca
 (C) Proventriculus (D) Crop
38. Which among the following statement is true in case of chicken?
 (A) Lungs of chicken expand only slightly
 (B) Chicken have no diaphragm
 (C) The lungs are supplemented by 9 air sacs
 (D) All of these
39. Regarding the reproduction in hen, which of the following statement is not correct :
 (A) Only the right ovary functions in adult
 (B) Oviduct is a thin tube occupying the left side of abdominal cavity
 (C) Both of the above
 (D) None of these

40. A good producing layer will be :
(A) Late and slow moult (B) Late and fast moult
(C) Early and fast moult (D) Medium moult
41. The albumen of egg is formed in :
(A) Uterus (B) Magnum
(C) Isthmus (D) Ovary
42. Selection method of choice for breeding bulls of dairy cattle is :
(A) Progeny testing (B) Individual selection
(C) Family selection (D) Pedigree selection
43. Which among the following statements is not true?
(A) In random selection all animals get equal opportunity for breeding
(B) Body weight can be improved by individual selection
(C) In out crossing the mating pair belongs to the same breed
(D) None of these
44. The cryoprotective agent for sperms in frozen semen is :
(A) Fructose (B) Tris buffer
(C) Glycerol (D) Sodium citrate
45. Service period is :
(A) The time taken for gravid uterus to return to non-gravid stage after parturition
(B) The period from a parturition to the next successful insemination
(C) The period between two successive parturitions
(D) The period from drying up of milking to parturition
46. The type of placenta in sow is :
(A) Cotyledonary (B) Discoid
(C) Zonary (D) Diffuse
47. Which of the following is not involved in ETT?
(A) Transfer of ova (B) Oestrus synchronisation
(C) Insemination of donor (D) Super ovulation
48. Chances of infertility due to anatomical causes may be minimised by :
(A) Preventing nutritional deficiencies
(B) Eliminating venereal diseases
(C) Avoiding inbreeding
(D) Proper timing of AI

49. Which of the following is not true about the recto-vaginal method of AI compared to speculum method?
- (A) Can be done in small animals easily
 - (B) Less disturbance to animal
 - (C) Pregnancy can be ruled out before AI
 - (D) Chance of injury to genital tract will be less
50. Regarding calf starter, which among the following is correct :
- (i) Calf-starter should contain about 20 per cent DCP and 70 per cent TDN.
 - (ii) An ideal calf starter can be used as a replacement for milk
 - (iii) Feeding calf starter can be stopped at an age of 6 months
- (A) Only (i) and (ii)
 - (B) Only (i) and (iii)
 - (C) Only (ii) and (iii)
 - (D) All of these (i), (ii) and (iii)
51. Which is not true about the summer management of cattle?
- (i) Animals may be let out for grazing for the whole day
 - (ii) The height of sidewall should exceed that of the animals
 - (iii) Reduce the energy and protein content of feed
- (A) Only (i) and (ii)
 - (B) Only (i) and (iii)
 - (C) Only (ii) and (iii)
 - (D) All of these (i), (ii) and (iii)
52. The recommended yearly percentage of herd replacement in cattle is :
- (A) 10
 - (B) 15
 - (C) 20
 - (D) 25
53. Niacin deficiency in dogs lead to :
- (A) Nutritional roup
 - (B) Pellagra
 - (C) Black tongue
 - (D) Muscular dystrophy
54. Grass staggers in cows occurs due to the deficiency of :
- (A) Magnesium
 - (B) Zinc
 - (C) Copper
 - (D) phosphorus
55. Drought and shade tolerant fodder crop suitable for cultivation in saline soil of Kerala :
- (A) Hybrid napier
 - (B) Congo signal
 - (C) Para grass
 - (D) Guinea grass
56. Regarding silage making, which is not true :
- (A) The dry matter content of crops for ensiling should be 30 – 35%
 - (B) The butyric acid formed by anaerobic fermentation preserve the silage
 - (C) Adult cattle can be fed 10 – 15 kg of silage per day
 - (D) Urea added at the level of 1% help to improve nitrogen content

57. Considering TMR feeding, which of the following statements is not correct :
- (A) Gives better feed efficiency by providing more stable rumen environment
 - (B) Helps to meet additional amino acid requirement for high production
 - (C) Avoid selective feeding of ingredients
 - (D) Reduces digestive and metabolic problems
58. Sugars and starch come under which proximate principle :
- (A) Nitrogen free extract
 - (B) Ether extract
 - (C) Total ash
 - (D) Crude fibre
59. According to thumb rule, daily pregnancy ratio to be given to cross bred cattle for the last three months of pregnancy is :
- (A) 1 kg of concentrate
 - (B) 1.25 kg of concentrate
 - (C) 1.5 kg of concentrate
 - (D) 1.75 kg of concentrate
60. White scour in calves is caused by :
- (A) *Staphylococcus aureus*
 - (B) *Pasteurella multocida*
 - (C) *Escherichia coli*
 - (D) *Salmonella pullorum*
61. A disease of cattle characterized by sudden appearance of high fever, shifting lameness, enlargement of peripheral lymph nodes and reduction in milk yield caused by Rhabdo virus :
- (A) Para tuberculosis
 - (B) Rinderpest
 - (C) FMD
 - (D) Ephemeral fever
62. Preferred site of deposition of frozen semen for AI is :
- (A) Uterine cornua
 - (B) At the external os of cervix
 - (C) Near the internal os of cervix
 - (D) Vagina
63. Total space requirement per grower/fattener pig is :
- (A) 1.5 m²
 - (B) 2 m²
 - (C) 3.5 m²
 - (D) 5 m²
64. Which is correct regarding breeding boars?
- (i) At 5 months of age the body weight should be minimum 60 kg
 - (ii) Requires 2—2.5 kg concentrate per 100 kg body weight
 - (iii) Boars should be changed once a year to avoid inbreeding
- (A) Only (i) and (ii)
 - (B) Only (i) and (iii)
 - (C) Only (ii) and (iii)
 - (D) All of these (i), (ii) and (iii)

65. Regarding the external morphology of chicken, cape is the region :
- (A) In between hackle and back (B) In between back and saddle
(C) In between saddle and sickle (D) In between fluff and shank
66. *Meleagris gallopavo* is the scientific name of :
- (A) Duck (B) Chicken
(C) Turkey (D) Quail
67. As per the basic animal husbandry statistics -2019, total poultry population in India for the year 2019 is :
- (A) 936.4 millions (B) 851.8 millions
(C) 729.2 millions (D) 648.8 millions
68. According to BIS specifications for poultry feed, minimum metabolisable energy content of layer chick feed should be :
- (A) 2600 Kcal/kg (B) 3000 Kcal/kg
(C) 2500 Kcal/kg (D) 2800 Kcal/kg
69. Restricted feeding is practiced in :
- (i) Broiler breeders
(ii) Growers
(iii) Layers
- (A) Only (i) and (ii) (B) Only (i) and (iii)
(C) Only (ii) and (iii) (D) All of these (i), (ii) and (iii)
70. The optimum feed efficiency for broilers ranges between :
- (A) 1.5 – 1.7 (B) 1.8 – 2.0
(C) 2.0 – 2.2 (D) None of these
71. Among the following types of waterers which one will provide the most clean water to chicken :
- (A) Fountain type waterer (B) Cup waterer
(C) Drip nipples (D) Hanging waterer
72. The total quantity of feed required to rear a broiler chick from day old to 6 weeks of age is approximately :
- (A) 2.0 kg (B) 6.0 kg
(C) 4.7 kg (D) 3.5 kg

73. Hatchery operations does not include :
- | | |
|-------------|--------------|
| (A) Dubbing | (B) Sexing |
| (C) Setting | (D) Brooding |
74. Culling should be practiced in :
- | | |
|-----------------------|--------------------------|
| (A) Chicks and layers | (B) Growers and breeders |
| (C) Both (A) and (B) | (D) None of these |
75. How can you reduce the summer stress in a deep litter poultry house?
- (i) Spray cool and clean water in shed
(ii) Reduce thickness of built up lifter
(iii) Give ascorbic acid supplement
- | | |
|-------------------------|--------------------------------------|
| (A) Only (i) and (ii) | (B) Only (i) and (iii) |
| (C) Only (ii) and (iii) | (D) All of these (i), (ii) and (iii) |
76. The easiest method of mating used in breeder chicken when pedigree records are not kept :
- | | |
|-----------------------------|-----------------|
| (A) Flock mating | (B) Stud mating |
| (C) Artificial insemination | (D) Pen mating |
77. Regarding nutritional value of egg :
- (A) Tinted egg is better than white shelled egg
(B) Brown shelled egg is better than tinted egg
(C) Both of these
(D) None of these
78. The transparent membrane enclosing the yolk of egg :
- | | |
|-------------------------|------------------------|
| (A) Chalaziferous layer | (B) Vitelline membrane |
| (C) Follicular membrane | (D) Cuticle |
79. Hatching eggs may be candled before incubation to find out the following except :
- | | |
|--------------------|---------------------|
| (A) Blood spot | (B) Infertile egg |
| (C) Air cell depth | (D) Albumen quality |
80. Which is not true regarding the physical requirements for incubation of chicken egg?
- (A) Temperature in setter 98.5°F
(B) Humidity in hatcher 65 – 75%
(C) Carbon dioxide level in setter below 0.5%
(D) The eggs kept horizontally in hatcher

81. Ideal storage conditions for hatching eggs before incubation include :
- (i) Temperature 10 – 12°C
 - (ii) Humidity 75 – 80%
 - (iii) Eggs held small end down
- (A) Only (i) and (ii) (B) Only (i) and (iii)
 (C) Only (ii) and (iii) (D) All of these (i), (ii) and (iii)
82. For fumigating 100 cubic feet incubator space, the chemicals needed are :
- (A) 20 g potassium permanganate and 40 ml formalin
 - (B) 40 g potassium permanganate and 20 ml formalin
 - (C) 30 g potassium permanganate and 50 ml formalin
 - (D) 50 g potassium permanganate and 30 ml formalin
83. A tumour developing Herpes viral disease of chicken :
- (A) New Castle disease (B) Fowl plague
 - (C) Marek's disease (D) Pullorum disease
84. A viral disease of chicken caused by Birna virus mainly affecting the Bursa of Fabricius :
- (A) Fowl cholera (B) Gumboro disease
 - (C) Avian influenza (D) Ranikhet disease
85. Which is true with respect to aspergillosis in chicken?
- (i) It may originate from hatchery contamination
 - (ii) It can be prevented by vaccination
 - (iii) Saucer shaped greenish nodules are seen in lungs
- (A) Only (i) and (ii) (B) Only (i) and (iii)
 (C) Only (ii) and (iii) (D) All of these (i), (ii) and (iii)
86. Disease caused due to riboflavin deficiency in chicken :
- (A) Curled toe paralysis (B) Nutritional roup
 - (C) Crazy chick disease (D) Rickets
87. Which of the following vaccine can be given through drinking water?
- (A) MD (B) RDF
 - (C) IBD (D) R_2B
88. Which of the following is not correct regarding the sex differentiation in quails?
- (A) Females are heavier than males (B) Males produce a peculiar sound
 - (C) Females have black speckles on throat (D) Males have black beards below neck
89. Average age at first egg in ducks is :
- (A) 16 weeks (B) 20 weeks
 - (C) 24 weeks (D) 28 weeks

90. The egg weight in turkey averages around :
- (A) 65 g (B) 75 g
(C) 85 g (D) 95 g
91. Aflatoxicosis mostly affects :
- (A) Ducks (B) Turkeys
(C) Quails (D) Chicken
92. Optimum marketing age for turkey is :
- (A) 10 – 12 weeks (B) 8 – 10 weeks
(C) 14 – 16 weeks (D) 12 – 14 weeks
93. As per BIS standards, cow milk should contain :
- (A) 3.5% milk fat and 8.5% SNF (B) 3.0% milk fat and 9.0% SNF
(C) 4.5% milk fat and 8.5% SNF (D) 4.0% milk fat and 9.0% SNF
94. The commonest method for pasteurization of packed milk obtained in Kerala market is :
- (A) Vacuum pasteurization (B) HTST system
(C) LTLT system (D) UHT system
95. According to PFA rules, cream should contain a minimum milk fat percentage of :
- (A) 10 (B) 80
(C) 25 (D) 99
96. A concentrated milk product is :
- (A) Butter (B) Rasgulla
(C) Lassi (D) Gulabjamun
97. Which of the following is not a step in ice cream manufacture?
- (A) Pasteurization (B) Figuring
(C) Homogenization (D) Ripening
98. The process which make milk a more stable emulsion :
- (A) Homogenization (B) Condensation
(C) Standardization (D) Pasteurization
99. Milk fat percentage may be estimated using :
- (A) Selliwanoff's test (B) Gerber's test
(C) Iodine test (D) Lactometer
100. What changes are effected in milk on adding skim milk to it?
- (A) SNF percentage rises, Specific gravity falls, fat percentage rises
(B) SNF percentage falls, Specific gravity falls, fat percentage rises
(C) SNF percentage rises, Specific gravity rises, fat percentage falls
(D) SNF percentage falls, Specific gravity rises, fat percentage falls

SPACE FOR ROUGH WORK

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