

COMPUTER BASED TEST – 2023

PAPER – I

FOR THE POST OF MANAGER (VETERINARY) IN TAMIL NADU CO-OPERATIVE MILK PRODUCER'S
FEDERATION LIMITED

ANIMAL HUSBANDRY & VETERINARY SCIENCE
(UG DEGREE STANDARD)

1. Major cause of laminitis in ruminants is due to
 - (A) Ruminal acidosis
 - (B) Mastitis
 - (C) Retention of placenta
 - (D) Tumour
 - (E) Answer not known

2. Dropped elbow is due to the paralysis of
 - (A) Radial nerve
 - (B) Ulnar nerve
 - (C) Axillary nerve
 - (D) Median nerve
 - (E) Answer not known

3. Degree of black and white distinction on a radiograph is
 - (A) Radiographic contrast
 - (B) Radiographic detail
 - (C) Radiographic density
 - (D) Radiographic fogging
 - (E) Answer not known

4. In which one of the following phases of wound healing granulation, epithelialization and wound contractions were noticed?
 - (A) Maturation Phase
 - (B) Repair phase
 - (C) Debridement phase
 - (D) Inflammatory phase
 - (E) Answer not known

5. Classic sunburst pattern occurs in an X-ray suggestive of
- (A) Mal union
 - (B) Melanoma
 - (C) Fibrosarcoma
 - (D) Osteosarcoma
 - (E) Answer not known
6. A special type of apposition suture suitable for intestinal anastomosis is
- (A) Grambee suture
 - (B) Donati's vertical mattress suture
 - (C) Halstead suture
 - (D) Cross-mattress suture
 - (E) Answer not known
7. Inability to withdraw the penis into the prepuce is a condition called
- (A) Phimosis
 - (B) Balanitis
 - (C) Posthitis
 - (D) Paraphimosis
 - (E) Answer not known
8. Spermatozoa with strongly coiled, folded or split tails are called as
- (A) knobbed spermatozoa
 - (B) Diadem defect
 - (C) Cork-screw sperm defect
 - (D) Dog defect
 - (E) Answer not known

9. Assertion (A) : The development of spermatogenesis is dependent on hormones in animals.

Reason (R) : FSH functions to initiate androgen production while LH develops the sertoli cells initially and then control the production of spermatogonia.

~~(A)~~ (A) is true but (R) is false

(B) Both (A) and (R) are true and (R) is the correct explanation of (A)

(C) (A) is false, (R) is true

(D) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(E) Answer not known

10. Ferguson's reflex initiates release of which hormone at parturition in cow?

(A) Estrogen

(B) Prostaglandin

~~(C)~~ Oxytocin

(D) Relaxin

(E) Answer not known

11. The concentration of spermatozoa (millions/ml) in bull semen is about

(A) 3000

(B) 1730

~~(C)~~ 1200

(D) 150

(E) Answer not known

12. In which type of foetal mummification, the foetal membranes get dried, shrivelled, parchment like with resultant dry contorted palpable foetal mass?
- (A) Foetal maceration
 - (B) Haematic type
 - (C) Papyraceous type
 - (D) Ectopic pregnancy
 - (E) Answer not known
13. Which of the following reasons does NOT cause damage to embryos during cryopreservation?
- (A) Intracellular ice crystal formation
 - (B) Dehydration
 - (C) Fracture planes in the extracellular ice
 - (D) Osmotic equilibrium
 - (E) Answer not known
14. Super ovulation in cow is done in the following order
1. FSH injected twice daily
 2. $\text{PGF}_2\alpha$ is injected for CL destruction
 3. Flushing of the fertilised embryo
 4. Transfer the embryo to surrogate mother
- (A) 2, 1, 3, 4
 - (B) 4, 1, 3, 2
 - (C) 1, 2, 3, 4
 - (D) 3, 2, 1, 4
 - (E) Answer not known

15. Which of the following structures does not arise from paramesonephric duct?
- (A) Oviduct
 - (B) Uterus
 - (C) Cervix
 - ~~(D) Vulva~~
 - (E) Answer not known
16. Under the transport of animals rules 1978, the rule 4 to 14 deals about the transport of one of the following
- ~~(A) Dogs and cats~~
 - (B) Horse
 - (C) Cattle
 - (D) Poultry
 - (E) Answer not known
17. Normal serum magnesium concentrations in cattle are
- (A) 1.7 to 2mg/dl
 - (B) 1.0 to 2mg/dl
 - ~~(C) 1.7 to 3mg/dl~~
 - (D) 1.7 to 4mg/dl
 - (E) Answer not known

18. The level of below 3mg/ml of following are component of serum is indicative of favourable prognosis in Downer Cow Syndrome
- (A) Bilirubin
 - ~~(B) Myoglobin~~
 - (C) Ceruloplasmin
 - (D) Globulin
 - (E) Answer not known
19. Mammary Ketogenesis is a characteristic feature of
- (A) Subclinical ketosis type – I alone
 - (B) Subclinical ketosis type – II alone
 - (C) Both Subclinical ketosis type – I and II
 - ~~(D) Subclinical ketosis type – III alone~~
 - (E) Answer not known
20. Endoscopy is insensitive for
- ~~(A) Oesophagus weakness~~
 - (B) Oesophagial tumors
 - (C) Oesophagitis
 - (D) Oesophagial foreign bodies
 - (E) Answer not known

21. In young animals 'Pipe-stem feces' is a clinical sign noticed in subacute stage of the disease caused by
- (A) B. canis
 - (B) B. gibsoni
 - ~~(C) B. Bovis~~
 - (D) B. Bigemina
 - (E) Answer not known
22. The clinical indications for nitrofurans is
- (A) Respiratory tract infections
 - ~~(B) Urinary tract infections~~
 - (C) Brucellosis
 - (D) Tuberculosis
 - (E) Answer not known
23. During cyanide poisoning, the CN^- radical complexes with ferric ion of
- (A) Haemoglobin
 - (B) Myoglobin
 - ~~(C) Cytochrome oxidase~~
 - (D) Both Haemoglobin and Myoglobin
 - (E) Answer not known
24. The following toxicants hinders oxygen uptake from pulmonary alveoli
- ~~(A) Alpha naphthyl thiourea~~
 - (B) Nitrate
 - (C) Carbon monoxide
 - (D) Chlorate
 - (E) Answer not known

25. Match the following toxicant/poisoning with antidotes given

List I(Toxicant/Poisoning)		List II(Antidote)	
(a) Hydrocyanic acid		1. Calcium disodium EDTA	
(b) Nitrate/Nitrite		2. D-penicillamine	
(c) Lead		3. 1% Methylene Blue	
(d) Copper		4. Sodium Nitrite and Sodium thio sulphate	

	(a)	(b)	(c)	(d)
(A)	3	4	1	2
(B)	4	3	2	1
(C)	4	3	1	2
(D)	3	4	2	1
(E)	Answer not known			

26. Assertion (A) : Bactericidal action of Benzyl penicillin is seen only against growing cells.

Reason (R) : It impair the formation of bacterial cell wall.

(A) (A) is true but (R) is false

~~(B)~~ Both (A) and (R) are true; (R) is the correct explanation of (A)

(C) (A) is false, (R) is true

(D) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(E) Answer not known

27. Which one of the following method is used to kill the cysticerci of *Taenia solium* in Pork carcasses?
- (A) Pickling in brine for 4 days
 - (B) Smoking with hardwoods
 - ~~(C)~~ Freezing at -14 to 18°C for 9 days
 - (D) All the above
 - (E) Answer not known
28. Warble is associated with
- (A) *Gastrophylus equi*
 - (B) *Sarcophaga ruficornis*
 - (C) *Lucila cuprina*
 - ~~(D)~~ *Hypoderma* spp.
 - (E) Answer not known
29. Morocco leather appearance of abomasum of calves is characteristic of the injection with
- (A) *Cooperia curticei*
 - (B) *Trichostrongyles axei*
 - (C) *Haemonchus contortus*
 - ~~(D)~~ *Ostertagia ostertagi*
 - (E) Answer not known

30. The in vivo test used to assess the anthelmintic resistance is
- (A) Egg hatch assay
 - (B) Larval development test
 - ~~(C)~~ Faecal egg count reduction test
 - (D) Larval paralysis test
 - (E) Answer not known
31. The type of antigen present in Tickgard vaccine is
- ~~(A)~~ Concealed antigen
 - (B) Excretory/secretory antigen
 - (C) Somatic antigen
 - (D) External antigen
 - (E) Answer not known
32. The fixative of choice for Histopathological examination of tissue is
- (A) 10% Alcohol
 - ~~(B)~~ 10% formol saline
 - (C) 40% Formaldehyde
 - (D) 50% Glycerol saline
 - (E) Answer not known
33. The preservative for toxicological analysis from tissue samples in suspected cases of phenolic compound poisoning is
- (A) Ethyl alcohol
 - (B) Rectified spirit
 - (C) Methylated spirit
 - ~~(D)~~ Saturated salt solution
 - (E) Answer not known

34. Which of the following is not the characteristic of malignant tumour?

1. Metastasis is always present
2. Polarity of cells are maintained
3. Mitotic figures are infrequently seen
4. Pleomorphism is uncommon

(A) 2, 1, 4

(B) 1, 2, 3

(C) 1, 3, 4

~~(D)~~ 2, 3, 4

(E) Answer not known

35. Death from starvation is assessed when

1. Skeletal muscle is pale and flabby
2. Stomach is contracted and empty
3. Upper part of the small intestine is stained with bile
4. The urinary bladder is full

(A) 2 is true and 1, 3 and 4 are false

(B) 4 is true and 1, 2 and 3 are false

~~(C)~~ 1, 2 and 3 are true and 4 is false

(D) 2 and 3 are true, and 1 and 4 are false

(E) Answer not known

36. Blood biomarker for kidney disease
- (A) ALT and AST
 - ~~(B) Bun and Creatinine~~
 - (C) Total bilirubin
 - (D) Indirect bilirubin
 - (E) Answer not known
37. Deficiency of choline results in
- (A) Deposition of uric acid in joints
 - ~~(B) Fatty infiltration in liver~~
 - (C) Thickening of urethral duct
 - (D) Fibrinoid degeneration in liver
 - (E) Answer not known
38. In tuberculosis the type of characteristic giant cells observed are
- (A) Touton giant cells
 - (B) Tumor giant cells
 - ~~(C) Langhans giant cells~~
 - (D) Reidsternberg cells
 - (E) Answer not known
39. Pseudo membranes and diphtheritic membranes of the crop is seen in the following condition
- (A) Aspergillosis
 - (B) Rhino sporidiosis
 - ~~(C) Candidiasis~~
 - (D) Blastomycosis
 - (E) Answer not known

40. The main source of infection for Marck's disease is
- (A) Feather follicle cells
 - (B) Egg
 - (C) Faeces
 - (D) Nasal secretion
 - (E) Answer not known
41. Arrange the stepwise pathogenesis of Foot and Mouth disease
1. Virus invades epithelial cells of Gastrointestinal mucosa and produce lesions
 2. Vesicle formation
 3. Invades lymph and blood
 4. Epithelium of mucus membrane and skin
- (A) 2, 4, 3, 1
 - (B) 3, 2, 1, 4
 - (C) 1, 4, 3, 2
 - (D) 1, 3, 4, 2
 - (E) Answer not known
42. If the total number of breeding females is less than or equal to 100 or the total number of breeding males is less than or equal to five, then the breed is classified as
- (A) critical
 - (B) endangered
 - (C) breed at risk
 - (D) extinct
 - (E) Answer not known

43. Which of the following is/are incorrectly?

1. MAS – Marker Assisted Selection
2. rRNA – Replicating Ribonucleic Acid
3. mRNA – Messenger Ribonucleic Acid
4. tRNA – Transposable Ribonucleic Acid

(A) only 3

~~(B)~~ 2 and 4

(C) 1 and 3

(D) 3 and 4

(E) Answer not known

44. When the markers which are spanned over the entire genome are analysed for detecting the key SNPs (Single Nucleotide Polymorphism) contributing to the trait of interest, it is called

(A) SNP selection

~~(B)~~ Genomic selection

(C) Gene introgression

(D) Combined selection

(E) Answer not known

45. The correct statements about "Tamil Nadu Bouine Breeding Act 2019"
- (i) Bouine breeding through natural service shall be restricted to only indigenous breeds.
 - (ii) Bulls used for natural service shall be registered by authority,
 - (iii) Indigenous breeds shall not be used for cross breeding.
- (A) (i) only
(B) (i) and (iii) only
(C) (ii) and (iii) only
~~(D) (i) and (ii) only~~
(E) Answer not known
46. The current breeding policy recommended by National Commission on Agriculture with respect to improvement of low producing non-descript cattle in India is
- (A) Selective breeding
 - ~~(B) Grading - up~~
 - (C) Out crossing
 - (D) Top crossing
 - (E) Answer not known

47. In two-breed rotational crossing at equilibrium, the off-spring carry the inheritance percentage from the two breeds will be
- (A) 50% of the genes from each breed
 - (B) 75% of the genes from the sire breed last used and 25% from the other breed
 - ~~(C)~~ 67% of the genes from the sire breed last used and 33% from the other breed
 - (D) 33% of the genes from the sire breed last used and 67% from the other breed
 - (E) Answer not known
48. Assertion (A) : Progeny testing is an ideal method for evaluating breeding values of Sire's for sex limited traits
- Reason (R) : Fewer males than the females are required for breeding; the scope for genetic improvement is greatest through selection of males.
- (A) (A) is true but (R) is false
 - ~~(B)~~ Both (A) and (R) are true; and (R) is the correct explanation of (A)
 - (C) (A) is false, (R) is true
 - (D) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
 - (E) Answer not known
49. Genetic gain increases with
- ~~(A)~~ increased variation in the population
 - (B) reduced selection differential
 - (C) reduced heritability
 - (D) increased generation interval
 - (E) Answer not known

50. Of the given options, identify the true statements for the selection method explained below:

Individual selection is not effective when the traits

1. are highly heritable
2. are expressed late in life
3. are lowly heritable
4. are expressed in only one sex

~~(A)~~ 2, 3, and 4

(B) 1, 2 and 4

(C) 3 and 4

(D) 1 and 2

(E) Answer not known

51. Assertion (A) : Prospective parents should be evaluated and selected under the same conditions in which their offspring will be produced.

Reason (R) : To avoid heredity \times Environmental interaction

(A) (A) is true but (R) is false

~~(B)~~ Both (A) and (R) are true, and (R) is the correct explanation of (A)

(C) (A) is false, (R) is true

(D) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

(E) Answer not known

52. The phenotypic values of most of the quantitative traits are found to follow _____
- (A) Binomial distribution
 - ~~(B)~~ Normal distribution
 - (C) Poisson distribution
 - (D) Frequency distribution
 - (E) Answer not known
53. Which of the following statement is/are false about reverse transcriptase enzyme?
1. It is a RNA dependent RNA polymerase
 2. Present in Retro viruses
 3. Does not have proof reading 3'-5' exonuclease activity
- (A) 1 and 2 only
 - (B) 1 and 3 only
 - ~~(C)~~ 1 only
 - (D) 3 only
 - (E) Answer not known
54. Type of RNA needed to translate the coded mRNA to amino acid is
- (A) mRNA
 - (B) rRNA
 - (C) sRNA
 - ~~(D)~~ tRNA
 - (E) Answer not known

55. In an equilibrium population, if the frequency of Recessive Allele is 0.40, the frequency of heterozygotes is
- (A) 0.18
 - (B) 0.28
 - (C) 0.38
 - ~~(D) 0.48~~
 - (E) Answer not known
56. The genetic composition of a population is determined by
- ~~(A) gene and genotypic frequencies~~
 - (B) migration
 - (C) mutation
 - (D) selection
 - (E) Answer not known
57. When a piece of chromosome becomes broken off and attached to another chromosome, usually of another pair, the phenomenon is called as _____
- (A) Deletion
 - (B) Inversion
 - (C) Duplication
 - ~~(D) Translocation~~
 - (E) Answer not known

58. Diploid chromosomal complement, having one extra chromosome of a homologous pair ($2n + 1$) is called
- (A) Monosomic
 - (B) Nullisomic
 - ~~(C) Trisomic~~
 - (D) Tetrasomic
 - (E) Answer not known
59. The chief cause of aneuploidy is
- (A) Crossing over
 - (B) Recombination
 - ~~(C) Non-disjunction~~
 - (D) Disjunction
 - (E) Answer not known
60. Avikalin strain of sheep has been evolved from
- ~~(A) Rambouillet and Malpura Halfbred~~
 - (B) Merino and Malpura
 - (C) Chokla and Merino
 - (D) Merino and Bikaneri
 - (E) Answer not known

61. Which one of the following is/are dual purpose breeds of cattle?
1. Harianag Ongole
 2. Kankrej, Deoni
 3. Amritmahal
 4. Kangayam, Malvi
- (A) 1 only correct
(B) 2 only correct
(C) 1, 2, 3 are correct
~~(D) 1 and 2 are correct~~
(E) Answer not known
62. Sheep breed famous for prolificacy in India is
- (A) Gaddi
~~(B) Garole~~
(C) Madras Red
(D) Nellore
(E) Answer not known
63. Feeding of excessive leguminous fodder to ruminant livestock causes _____, a metabolic disorder.
- (A) Osteomalacia
(B) Acidosis
(C) Parakeratosis
~~(D) Bloat~~
(E) Answer not known

64. _____ is a by product obtained from sugar industry which is used as binder for commercial pelleted feed.
- (A) Bagasse
 - (B) Press Mud
 - ~~(C) Molasses~~
 - (D) Gluten
 - (E) Answer not known
65. Lacking of physically effective fibre in the ration of dairy cows fed with fermentable carbohydrate causes
- (A) Ketosis
 - ~~(B) Acidosis~~
 - (C) Alkalosis
 - (D) Milk fever
 - (E) Answer not known
66. The odd one out
- (A) Copper – Sway back
 - (B) Manganese – Perosis
 - (C) Zinc – Parakeratosis
 - ~~(D) Magnesium – Falling disease~~
 - (E) Answer not known

67. Which one of the following statement is correct?
- (A) Rice bran is laxative in action and contains more than 20% crude protein
 - (B) Rice bran is a milling by-products and contains less than 5% crude fibre
 - ~~(C)~~ Rice bran is a milling by-product and contains 14% crude protein
 - (D) Rice bran contains 18% crude protein
 - (E) Answer not known
68. (i) The amount of feed consumed by an elephant is equivalent to about 10 percent of its body weight.
- (ii) The female elephant with suckling calf feeds about 15 percent of her body weight
- (A) (i) and (ii) True
 - (B) (i) True and (ii) False
 - (C) (i) False and (ii) True
 - ~~(D)~~ (i) and (ii) False
 - (E) Answer not known

69. Which of the following statements are true about Good Silage?
- (i) The pH is above 4.8
 - (ii) The taste is acidic
 - (iii) The pH is between 3.5 and 4.2
 - (iv) High in butyric acid content
- (A) (i) and (ii) only
~~(B) (ii) and (iii) only~~
(C) (i) and (iv) only
(D) (i), (ii) and (iv) only
(E) Answer not known
70. The predominant acid produced during the anaerobic fermentation of fodder while making silage is
- (A) Acetic acid
 - (B) Propionic acid
 - ~~(C) Lactic acid~~
 - (D) Pyruvic acid
 - (E) Answer not known
71. In swine, greasy skin disease occurs due to
- ~~(A) High calcium level in the diet~~
 - (B) Low cobalt level in the diet
 - (C) Low iron level in the diet
 - (D) High potassium level in the diet
 - (E) Answer not known

72. The species that often refuses musty feeds are
- (A) Horses
 - (B) Buffalo
 - (C) White cattle
 - (D) Sheep and goats
 - (E) Answer not known
73. Which is the vitamin act as a co enzyme for decarboxylation deamination of serine and threonine, transamination, transulfuration, desulfuration of cysteine?
- (A) B₁
 - (B) B₂
 - (C) B₆
 - (D) B₁₂
 - (E) Answer not known
74. Which vitamin has a role in the absorption of amino acid from intestine?
- (A) Vitamin E
 - (B) Vitamin B₁₂
 - (C) Vitamin C
 - (D) Vitamin B₆
 - (E) Answer not known

75. Goose stepping gait in pigs is due to the deficiency of
- (A) Pyridoxine
 - ~~(B) Pantothenic acid~~
 - (C) Nicotinamide
 - (D) Riboflavin
 - (E) Answer not known
76. "Thumps", a condition found in young piglets characterized by laboured breathing with spasmodic jerking of diaphragmatic muscle is due to the deficiency of
- (A) Copper
 - (B) Selenium
 - ~~(C) Iron~~
 - (D) Iodine
 - (E) Answer not known
77. The anti nutritional effect of oxalic acid present in plants is mainly through complexing with
- (A) Phosphorous
 - (B) Zinc
 - (C) Copper
 - ~~(D) Calcium~~
 - (E) Answer not known

78. The degree of unsaturation in fats is measured as
- (A) Melting point
 - ~~(B) Iodine Number~~
 - (C) Saponification Number
 - (D) Reichert-Meissl Number
 - (E) Answer not known
79. Which animal species is more susceptible to copper toxicity?
- (A) Pig
 - ~~(B) Sheep~~
 - (C) Dog
 - (D) Horse
 - (E) Answer not known
80. Neutral Detergent Fibre (NDF) – Acid Detergent Fibre (ADF) = _____
- ~~(A) Hemicellulose~~
 - (B) Cellulose
 - (C) Lignin
 - (D) Silica
 - (E) Answer not known
81. In general, the digestibility of bacterial protein by ruminants is
- ~~(A) low~~
 - (B) moderate
 - (C) high
 - (D) 100%
 - (E) Answer not known

82. Feed containing more than 18% crude fibre and less than 60% TDN on air dry basis are called as
- (A) Roughage
 - (B) Concentrate
 - (C) Conventional feed
 - (D) Unconventional feed
 - (E) Answer not known
83. Mixed farming is a system that consists of the following integration
- (A) Crop production
 - (B) Growing trees
 - (C) Animal Production
 - (D) Both (A) and (C)
 - (E) Answer not known
84. Variable costs are otherwise called as
- (A) Social cost
 - (B) Direct cost
 - (C) Indirect cost
 - (D) Economic cost
 - (E) Answer not known

85. Consider the following statements regarding the estimation of cost of milk production:

- I. Depreciation was not charged on milch animals upto third lactation.
- II. Fourth and Fifth lactation animal depreciation was charged at 10%
- III. Sixth and above lactation depreciation was charged at 20%
- IV. Depreciation is a variable cost

Which of the above statements is/are correct?

- (A) I, II, IV
- ~~(B) I, II, III~~
- (C) I, III, IV
- (D) I, II, III, IV
- (E) Answer not known

86. The decline in value of farm assets due to usage, damage and time obsolescence is termed as

- (A) Appreciation
- ~~(B) Depreciation~~
- (C) Re-valuation
- (D) Devaluation
- (E) Answer not known

87. While transporting cattle, the average space provided per cattle in railway wagon vehicle shall not be less than
- (A) 6 square metres
 - (B) 5 square metres
 - (C) 3 square metres
 - (D) 2 square metres
 - (E) Answer not known
88. In the economics of Goat rearing, the cost of grazing is classified as _____ cost.
- (A) Overhead cost
 - (B) Fixed cost
 - (C) Surity cost
 - (D) Variable cost
 - (E) Answer not known
89. Bestiality is punishable under which act?
- (A) IPC 428
 - (B) IPC 429
 - (C) IPC 420
 - (D) IPC 377
 - (E) Answer not known

90. Arrange the following events in chronological order
1. Launching of operation Flood
 2. Creation of World Trade Organization
 3. Founding of National Dairy Development Board
 4. Livestock census started in India
- (A) 4, 3, 2, 1
(B) 4, 1, 2, 3
~~(C) 4, 3, 1, 2~~
(D) 3, 4, 1, 2
(E) Answer not known
91. Free distribution of Nellore cows scheme was implemented during the year in Tamil Nadu
- ~~(A) 2011 - 12~~
(B) 2012 - 13
(C) 2010 - 11
(D) 2013 - 14
(E) Answer not known
92. Major contribution to the National Economy is by which of the livestock products?
- (A) Meat and meat products
(B) Poultry
~~(C) Milk and Milk products~~
(D) Dung for fuel
(E) Answer not known

93. Which of the following is incorrectly paired?
1. SLBP – Special Livestock Breeding Programme
 2. ICDP – Integrated Cattle Development Project
 3. MMPO – Meat and Milk Products Order
 4. IWIP – Integrated Wool Improvement Project
- (A) 1 and 3 only
~~(B) 2 and 3 only~~
(C) 3 and 4 only
(D) 1 and 4 only
(E) Answer not known .
94. As per the 20th Livestock census, the buffalo population in India is
-
- (A) 89.85 million
(B) 143.85 million
(C) 93.85 million
~~(D) 109.85 million~~
(E) Answer not known
95. Leading states for egg production are
- (A) Tamil Nadu and Karnataka
(B) Tamil Nadu and Kerala
~~(C) Tamil Nadu and Andhra Pradesh~~
(D) Andhra Pradesh and Karnataka
(E) Answer not known

96. A scheme at the government cattle breeding farms in their breeding tracts to produce stud bulls of recognized breed, which was initiated in the first five-year plan is
- (A) Hill cattle development scheme
 - (B) Intensive cattle development project
 - ~~(C) Key village scheme~~
 - (D) Premium bull scheme
 - (E) Answer not known
97. ATMA indicates as
- (A) Agency for Training and Management in Agriculture
 - ~~(B) Agricultural Technology and Management Agency~~
 - (C) Assessment Transfer and Monitoring Agency
 - (D) Assessment Training and Management Agency
 - (E) Answer not known
98. Arrange the sequence of cleaning and disinfection processes in a Dairy plant
1. Rinsing and Acidic cleaning
 2. Rinsing and Alkaline cleaning
 3. Rinsing and Disinfection
 4. Final Rinsing
- (A) 2, 3, 1, 4
 - ~~(B) 2, 1, 3, 4~~
 - (C) 1, 2, 3, 4
 - (D) 3, 2, 1, 4
 - (E) Answer not known

99. Choose the Right Matches:

1. HACCP – Hazard Analysis Critical Control Point
2. OIE – World Organization for Animal Production
3. FAO – Food Animal Organisation
4. FSSAI – Food Safety and Standards Authority of India

- (A) 1 and 3 are correct
~~(B)~~ 1 and 4 are correct
(C) 2 and 3 are correct
(D) 3 and 4 are correct
(E) Answer not known

100. GMP is used for the purpose of

- (A) Mass Production
~~(B)~~ Quality Control
(C) Residue analysis
(D) Consumer acceptability
(E) Answer not known

101. The pasteurized milk should have a Spc/ml (org) not exceeding

- ~~(A)~~ 30,000
(B) 2,00,000
(C) 5,00,000
(D) 50,000
(E) Answer not known

102. Bactofugation refers to the process of
- (A) Removing bacteria in milk by centrifugal force
 - (B) Destruction of bacteria by fumigation
 - (C) Inhibition of bacteria by acidification
 - (D) Destruction of bacteria by alternate slow chilling and heating
 - (E) Answer not known
103. The following pigment in the milk gives characteristic colour to whey
- (A) α -Carotene
 - (B) Xanthophyll
 - (C) Lactoflavin
 - (D) β -Carotene
 - (E) Answer not known

104. Match List I and List II

List I	List II
(A) 0.5% Fat and 8.7% SNF	I. Double Toned milk
(B) 1.5% Fat and 9.0% SNF	II. Toned milk
(C) 3.0% Fat and 8.5% SNF	III. Standardized milk
(D) 4.5% Fat and 8.5% SNF	IV. Skim milk

- | (A) | (B) | (C) | (D) |
|---|-----|-----|-----|
| (A) II | III | IV | I |
| <input checked="" type="radio"/> (B) IV | I | II | III |
| (C) III | II | IV | I |
| (D) II | I | IV | III |
- (E) Answer not known

105. The most satisfactory heat stability of evaporated milk is assessed by
- (A) Pilot sterilization test
 - (B) Acidity test
 - (C) COB test
 - (D) Dye reduction test
 - (E) Answer not known
106. The incubation temperature for 'Yoghurt' production is
- (A) 37-40°C
 - (B) 72-75°C
 - (C) 63-65°C
 - (D) 41-43°C
 - (E) Answer not known
107. Arrange in Sequential unit order with respect to operational procedure in a chilling centre for milk
1. Sampling
 2. Grading for Acceptance/Rejection
 3. Weighing
 4. Cooling and Storage
- (A) 1, 2, 3, 4
 - (B) 4, 3, 2, 1
 - (C) 2, 1, 4, 3
 - (D) 2, 3, 1, 4
 - (E) Answer not known

108. Choose the right answer:

The group of organisms belongs to serratia SP is responsible for the cause of _____ in Egg Albumen

- (A) Green Rot
- (B) Fungal Rot
- (C) Red Rot
- (D) Black Rot
- (E) Answer not known

109. The eggshell breaking strength (applied on the side of the egg) of good quality chicken eggs is _____ kg.

- (A) 0.7 to 1.6
- (B) 1.7 to 2.6
- (C) 2.7 to 3.6
- (D) 3.7 to 4.6
- (E) Answer not known

110. As per Food safety and standards Act, 2006, Carcass, organ or part thereof detained for detailed examination shall be marked as

- (A) 'Suspect'
- (B) 'Detained'
- (C) 'Inspected'
- (D) 'Held'
- (E) Answer not known

111. Choose the right matches among type:

- | | |
|------------------------|-------------------|
| 1. Bronchial Lymphnode | Carpenter's Joint |
| 2. Calf Liver | Inspector's Node |
| 3. Spleen | Melt |
| 4. Pancreas | Gut Sweat Bread |

- (A) 1 and 2 are correct
~~(B) 3 and 4 are correct~~
(C) 3 only correct
(D) 4 only correct
(E) Answer not known

112. _____ is a chelating agent used in meat plant sanitation.

- (A) Propylene glycol
(B) Caustic soda
~~(C) EDTA~~
(D) Hypochlorite
(E) Answer not known

113. _____ is added to reduce the cooking losses in cured mixture.

- (A) Sodium nitrite
(B) Sodium chloride
~~(C) Sodium poly phosphates~~
(D) Sodium ascorbate
(E) Answer not known

114. An objectionable boar odour in pork is mainly due to

1. Skatole
2. Prostaglandin
3. Androstenone

- (A) 1 alone is correct
(B) 2 alone is correct
(C) 1 and 2 are correct
~~(D) 1 and 3 are correct~~
(E) Answer not known

115. Which of the following is/are incorrectly paired?

- | | |
|--------------|-----------------------|
| 1. Terefa | Razor – Sharp Knife |
| 2. Schechita | Shochet |
| 3. Chalef | Unfit for consumption |
| 4. Shomer | Sealer |

- (A) 2 and 4
~~(B) 1 and 3~~
(C) 1 and 4
(D) 2 and 3
(E) Answer not known

116. Arrange the events/consequences after circulatory failure in Slaughtered Animal
1. P^H Falls
 2. Oxidation-Reduction potential falls
 3. Anerobic Glycolysis
 4. Rigor Mortis
- (A) 1, 2, 3, 4
(B) 3, 1, 2, 4
~~(C)~~ 2, 3, 1, 4
(D) 2, 1, 3, 4
(E) Answer not known
117. The recommended light intensity at all inspection points in an Abattoir is _____.
- (A) 20 Foot Candles
(B) 40 Foot Candles
~~(C)~~ 50 Foot Candles
(D) 10 Foot Candles
(E) Answer not known
118. Cold shortening can be prevented by _____.
- (A) Electrical Stunning
~~(B)~~ Electrical Stimulation
(C) Rapid Chilling
(D) Blast Freezing
(E) Answer not known

119. An intelligent computer programme that uses knowledge and inference procedures to solve problem is
- (A) Management Information System
 - (B) Geographical Information System
 - ~~(C) Expert system~~
 - (D) Knowledge Management System
 - (E) Answer not known
120. Sustainable livestock production may be achieved through
- (A) Reduced consumption of inputs
 - (B) Introduction of regenerative technologies
 - (C) Strengthening local groups and institutions for natural resource management
 - ~~(D) Interrelated function of above three functions~~
 - (E) Answer not known
121. The Community Development Programme started during the first five year plan in India was based on the experience gained in rural reconstruction of
- ~~(A) Etawah Pilot Project~~
 - (B) Firka Development Scheme
 - (C) Gurgaon Project
 - (D) Marthandam Project
 - (E) Answer not known

122. The location specific computerized data management system for capturing, storing, analysis of disease monitoring and surveillance is called
- (A) Geographic Information System
 - (B) Global Positioning System
 - (C) Herd Management System
 - (D) Hospital Management System
 - (E) Answer not known
123. In programme planning, the process of determining the extent to which the objectives have been obtained is known as
- (A) Evaluation of progress
 - (B) Follow plan of work
 - (C) Analysis of situation
 - (D) Determining objectives and goals
 - (E) Answer not known
124. The adopter category who are more skeptical and cautious are
- (A) Early adopter
 - (B) Early majority
 - (C) Late majority
 - (D) Laggards
 - (E) Answer not known

125. The adoption stage in which the individual mentally examines the possibility of application of an innovation under his own condition is
- (A) Awareness
 - ~~(B) Deliberation~~
 - (C) Trial
 - (D) Evaluation
 - (E) Answer not known
126. The process by which an innovation is communicated through certain channels over time among the members of a social system is called
- (A) Adoption
 - ~~(B) Diffusion~~
 - (C) Decision
 - (D) Persuasion
 - (E) Answer not known
127. The most cosmopolite among the adopter category is
- ~~(A) Innovators~~
 - (B) Early adopters
 - (C) Early majority
 - (D) Late majority
 - (E) Answer not known

128. The degree to which an innovation is perceived as better than the idea it supercedes is
- (A) Relative advantage
 - (B) Observability
 - (C) Divisibility
 - (D) Complexity
 - (E) Answer not known
129. Panchayat Raj refers to
- (A) Gram Panchayat
 - (B) Panchayat Samithi
 - (C) Zilla Parishad
 - (D) Democratic Decentralization
 - (E) Answer not known
130. Social stratification is hardly found in
- (A) Urban community
 - (B) Rural community
 - (C) Tribal community
 - (D) Metropolitan community
 - (E) Answer not known
131. The goal of teaching is
- (A) Arousing
 - (B) Learning
 - (C) Attention
 - (D) Action
 - (E) Answer not known

132. Every elected Panchayat normally continues for a period of
- (A) 3 years
 - (B) 4 years
 - ~~(C) 5 years~~
 - (D) 6 years
 - (E) Answer not known
133. All learned normative behaviour pattern of thinking, feeling and doing is called
- ~~(A) Culture~~
 - (B) Belief
 - (C) Law
 - (D) Custom
 - (E) Answer not known
134. The most basic social institution which meets the basic needs of the society is
- ~~(A) Family~~
 - (B) Religion
 - (C) Government
 - (D) Education
 - (E) Answer not known

135. The farming in which more than 50% of the income is derived from a single enterprise is
- (A) Diversified farming
 - ~~(B)~~ Specialised farming
 - (C) Mixed farming
 - (D) Extensive farming
 - (E) Answer not known
136. The fundamental objective of extension is
- ~~(A)~~ Development of people
 - (B) Increase production
 - (C) Change the outlook of people
 - (D) Development of community
 - (E) Answer not known
137. The farming in which the cost of production per unit will be less is
- (A) Small scale farming
 - ~~(B)~~ Large scale farming
 - (C) Mixed farming
 - (D) Extensive farming
 - (E) Answer not known

138. The principle of learning by doing is applicable in which attribute of innovation?
- (A) Relative advantage
 - ~~(B) Trialability~~
 - (C) Observability
 - (D) Compatibility
 - (E) Answer not known
139. Strychnine Poisoning acts by blocking the action of _____.
- (A) Leucine
 - (B) Lysine
 - (C) Tryptophan
 - ~~(D) Glycine~~
 - (E) Answer not known
140. Which are the most frequent flood type that occur in Indian subcontinent?
- (A) Rainstorm floods
 - ~~(B) Rainfall floods~~
 - (C) Coastal floods
 - (D) Dam-failure floods
 - (E) Answer not known

141. Which of the following statements are correct with respect to lead poisoning in animals?
- I. Most common form of chemical poisoning in the world.
 - II. Only 2% of the lead ingested is absorbed in the intestine.
 - III. Nervous symptoms predominate in affected animals.
 - IV. Has corrosive action on all mucous membrane.
- (A) I and II are correct
 - (B) II and III are correct
 - (C) I, II and III are correct
 - (D) All are correct
 - (E) Answer not known
142. During Ante mortem Examination, the veterinarian often confused the lead toxicity with
- (A) Leptospirosis
 - (B) Toxoplasmosis
 - (C) Listeriosis
 - (D) Arsenic Toxicity
 - (E) Answer not known

143. Which of the following statement(s) is/are true with respect to Japanese Encephalitis?

1. Japanese Encephalitis in man occurs endemically in tropical areas.
2. In this disease, case fatality rate ranging between 20% and 50%.
3. Swine plays a major role as amplifiers of the virus.
4. Aedes Aegypti is the major vector for this virus.

- (A) 1 and 2 are correct
(B) 2, 3 and 4 are correct
~~(C)~~ 1, 2 and 3 are correct
(D) 1, 2, 3 and 4 are correct
(E) Answer not known

144. Assertion (A) : The ingress of birds, rats and insects can cause serious problems in meat plant.

Reason (R) : They may carry food-poisoning organisms.

- (A) (A) is true but (R) is false
~~(B)~~ Both (A) and (R) are true and (R) is the correct explanation
(C) (A) is false; but (R) is true
(D) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
(E) Answer not known

145. An epidemiological study which compares a group exposed to factors with a group not exposed to the factors with respect to the development of a disease
- (A) Case-control study
 - (B) Cross-sectional study
 - ~~(C) Cohort study~~
 - (D) Longitudinal study
 - (E) Answer not known
146. The widely used commercial vaccine against Marek's disease in poultry
- (A) SB-1 strain vacciné
 - (B) FC-126 strain vaccine
 - (C) Attenuated MDV vaccine
 - ~~(D) HVT (Turkey Herpes Virus Vaccine)~~
 - (E) Answer not known
147. The following are of the animal serve as amplifier host for foot and mouth disease
- (A) Cattle
 - (B) Sheep
 - (C) Horse
 - ~~(D) Pig~~
 - (E) Answer not known

148. 'Brisket edema' is a common clinical sign noticed in _____ in cattle.
- (A) Black quarter
 - (B) Necrotic hepatitis
 - (C) Johne's diseases
 - ~~(D) Haemorrhagic septicaemia~~
 - (E) Answer not known
149. Small cell variant (SCV) of *Coxiella burnetti* is not matched with one of the following
- (A) Extracellular in nature
 - (B) Resistant form
 - ~~(C) Intracellular in nature~~
 - (D) Survive upto 150 days as infectious agent in the environment
 - (E) Answer not known
150. Match List I and List II
- | | |
|---|---|
| <p style="text-align: center;">List I</p> <ul style="list-style-type: none"> (A) Direct Elisa (B) Sandwich Elisa (C) C. Elisa (D) Dot Elisa | <p style="text-align: center;">List II</p> <ul style="list-style-type: none"> I. Double Antigen II. Unknown Antigen III. Nitro Cellulose Membrane IV. Monoclonal Antibodies |
|---|---|
-
- | | | | | |
|----------------|-----|-----|-----|-----|
| | (A) | (B) | (C) | (D) |
| (A) | II | III | IV | I |
| (B) | I | III | II | IV |
| (C) | III | II | IV | I |
| (D) | II | I | IV | III |
- (E) Answer not known

151. The type of vaccine used for prevention of anthrax
- (A) Killed vaccine
 - ~~(B) Live attenuated spore vaccine~~
 - (C) Whole culture vaccine
 - (D) Cell-culture adopted vaccine
 - (E) Answer not known
152. Choose the wrong pair regarding the formation of inclusion bodies in the infected cell:
- | | | | |
|----|----------------------------------|---|--|
| 1. | Canine Distemper | – | Intranuclear |
| 2. | Rabies | – | Negri Bodies |
| 3. | Infectious Laryngo
Tracheitis | – | Intra cytoplasmic and
Intra Nuclear |
| 4. | Fowl Pox | – | Bollinger Bodies |
- (A) 1
 - (B) 3
 - (C) 3 and 4
 - ~~(D) 1 and 3~~
 - (E) Answer not known
153. The plasma membrane of the fungi differs from animal cells is having _____.
- (A) Chitin
 - (B) Lipopolysaccharide Layer
 - (C) Peptidoglycan
 - ~~(D) Ergosterol~~
 - (E) Answer not known

154. Mycotic abortion, Guttural pouch mycosis and Brooder pneumonia are caused by _____, which is a member of fungi imperfecti.
- (A) Geotrichum candidum
 - (B) Histoplasma capsulatum
 - (C) Abscidia
 - ~~(D) Aspergillus fumigatus~~
 - (E) Answer not known
155. The cell wall of fungus is composed of _____ with cellulose cross linkages.
- (A) Peptidoglycan
 - (B) N-acetyl Muramic acid
 - ~~(C) Chitin macro molecules~~
 - (D) Mycolic acid
 - (E) Answer not known
156. Regarding the Toxin produced by clostridium tetani, pick out the true statement/s.
- I. Death occurs by the Flacid Paralysis of the Respiratory muscles.
 - II. The light chain of Toxin binds with the receptor and the heavy chain is the toxic moiety.
 - III. Toxin prevents the release of inhibitory neurotransmitter resulting in muscular spasms.
 - IV. Toxin is transported by Retrograde Intra Axonal Flow
- (A) I and II
 - (B) I and III
 - (C) II and III
 - ~~(D) III and IV~~
 - (E) Answer not known

157. Choose the right answer on Holding Temperature and Time of Hot Air Oven is
- (A) 160°C for one hour
 - (B) 110°C for one hour
 - (C) 121°C for 15 minutes
 - (D) 100°C for three hours
 - (E) Answer not known
158. Lance field's Grouping is used for typing which organism?
- (A) E. Coli
 - (B) Lactobacillus
 - (C) Streptococci
 - (D) Staphylococci
 - (E) Answer not known
159. Which of the following test is used for the detection of Anthrax in Decomposed Carcasses?
- (A) Coomb's Test
 - (B) Ascoli's Test
 - (C) Pearl of String Test
 - (D) Anton's Test
 - (E) Answer not known

160. Which among the following Amino Acids are charged?
1. Lysine
 2. Glycine
 3. Arginine
 4. Tyrosine
- (A) 1 and 2 only
~~(B) 1 and 3 only~~
(C) 2 and 4 only
(D) 3 and 4 only
(E) Answer not known
161. Which of the following is not an Enzyme of Urea Cycle?
- (A) Ornithine Transcarbamoylase
(B) Carbamoyl Phosphate Synthetase I
(C) Arginino Succinate Synthetase
~~(D) Carbamoyl Phosphate Synthetase II~~
(E) Answer not known
162. The Glucogenic volatile fatty acid produced during Rumen Fermentation is
- (A) Acetate
~~(B) Propionic Acid~~
(C) Butyric Acid
(D) Beta Hydroxy Butyric Acid
(E) Answer not known

163. Find the incorrect statement of the following which would cause Ruminant Acidosis
- (A) Reduction of Rumen pH below 5.5
 - (B) Growth of Lactobacillus decrease in buffer secretion from Rumen wall
 - (C) Feeding of Excessive soluble carbohydrates
 - ~~(D)~~ Sudden change from concentrate diet to roughage diet
 - (E) Answer not known
164. The negative acute phase protein among the following is
- (A) C-Reactive Protein
 - ~~(B)~~ Albumin
 - (C) Haptoglobin
 - (D) Serum Amyloid A
 - (E) Answer not known
165. Insulin stimulated uptake of glucose is mediated by this glucose transporter _____ present in Heart and Skeletal Muscles.
- (A) Glut 1
 - (B) Glut 2
 - (C) Glut 3
 - ~~(D)~~ Glut 4
 - (E) Answer not known

166. The favorable conditions required for Pregastric Fermentation is/are
- (i) Accumulation of the end products of fermentation
 - (ii) Onward propulsion of the unfermented material to the Abomasum
 - (iii) Regular mixing to facilitate the addition of new substrate and buffers
 - (iv) Maintaining Aerobic conditions
- (A) (i) only
(B) (i) and (ii) only
~~(C)~~ (ii) and (iii) only
(D) (i) and (iii) only
(E) Answer not known
167. Example of Poly unsaturated fatty acid is
- (A) Palmitic acid
(B) Oleic acid
(C) Stearic acid
~~(D)~~ Arachidic acid
(E) Answer not known
168. Which of the following metabolite is neurotoxic?
- (A) Urea
(B) Creatine
~~(C)~~ Ammonia
(D) Uric acid
(E) Answer not known

169. Normally how many days are required for the formation of mature RBCs from rubriblasts?
- ~~(A)~~ 4-5 days
 - (B) 14-15 days
 - (C) 24-25 days
 - (D) 114-125 days
 - (E) Answer not known
170. Which combination of statement is completely correct?
In Lactating Animals, during summer months
- (i) Feed consumption declined
 - (ii) Milk Production declined
 - (iii) Feed consumption unaltered
 - (iv) Milk production unaltered
- ~~(A)~~ (i) and (ii) only
 - (B) (i) and (iii) only
 - (C) (ii) and (iii) only
 - (D) (iii) and (iv) only
 - (E) Answer not known
171. Which one of the Respiratory volume is associated with the amount of Air In or Out during a respiratory cycle?
- (A) Inspiratory Reserve Volume
 - ~~(B)~~ Tidal Volume
 - (C) Residual Volume
 - (D) Inspiratory Volume
 - (E) Answer not known

172. Which of the following is incorrectly paired?

- | | | | |
|----|--|---|--------------|
| 1. | Milk Ejection Reflex | – | Oxytocin |
| 2. | Mammary Lobulo
Alveolar Development | – | Prolactin |
| 3. | Mammary Duct Growth | – | Estrogen |
| 4. | Lactogenesis | – | Progesterone |

- (A) 1 and 2
(B) 2 and 3
(C) 3 and 4
~~(D) 2 and 4~~
(E) Answer not known

173. Which of the following statements are true about blood clotting?

- (i) Vitamin K is responsible for formation of prothrombin and factors VII, IX and X.
(ii) Sweet clover poisoning causes Haemorrhagic disease
(iii) The final step in blood coagulation is the conversion of Prothrombin to thrombin

- (A) (i) and (iii)
~~(B) (i) and (ii)~~
(C) (i) only
(D) (iii) only
(E) Answer not known

174. Trochlea is present in which of the following joint?

- (A) Shoulder joint
- (B) Hip joint
- (C) Stifle joint
- (D) Pastern joint
- (E) Answer not known

175. Shape of right kidney in Horse is

- (A) Bean
- (B) Heart of playing card
- (C) Elongated
- (D) Oval
- (E) Answer not known

176. Which cells in the stomach secretes Hcl?

- (A) Pyloric cells
- (B) Body chief cells
- (C) Parietal cells
- (D) Pancreatic cells
- (E) Answer not known

177. The Vertebral formula in cattle is

- (A) C₇ T₁₃ L₆ S₅ Cy₁₈ – C₂₀
- (B) C₆ T₁₄ L₇ S₆ Cy₁₈ – C₂₀
- (C) C₇ T₁₅ L₆ S₇ Cy₁₈ – C₂₀
- (D) C₈ T₁₃ L₈ S₅ Cy₁₈ – C₂₀
- (E) Answer not known

178. The only accessory sex gland present in dog is
- (A) Seminal vesicle
 - (B) Cowper's gland
 - (C) Prostate gland
 - (D) Preputial gland
 - (E) Answer not known
179. Assertion (A) : The Hip Joint of horses does not allow abduction and limits the side kicking.
- Reason (R) : Abduction is checked by tension of accessory ligament which extends from subpubic groove to head of femur.
- (A) (A) and (R) are false
 - (B) (A) is true but (R) is false
 - (C) (A) and (R) is true and (R) is the correct Reason for (A)
 - (D) (A) and (R) is true and (R) is not the correct Reason for (A)
 - (E) Answer not known
180. Give the correct statement regarding rabbit management
- (1) Doe is taken into buck cage for effective mating.
 - (2) 1:30 is a recommended male to female sex ratio for rabbit breeding.
 - (3) Nest box arrangement is needed around 42nd days of gestation.
- (A) (1) alone is correct
 - (B) (2) alone is correct
 - (C) (3) alone is correct
 - (D) (2) and (3) are correct
 - (E) Answer not known

181. In animal mating systems
- (i) Polygyny means one male mates with many females.
 - (ii) Polyandry means many males mate with one female.
- (A) (i) and (ii) false
 - (B) (i) and (ii) true
 - (C) (i) true and (ii) false
 - (D) (i) false and (ii) true
 - (E) Answer not known
182. The hybrid animal born to a female horse and a male donkey known as
- (A) Liger
 - (B) Mule
 - (C) Hinny
 - (D) Zebroid
 - (E) Answer not known
183. Gestation period of African elephant is _____ months.
- (A) 15
 - (B) 18
 - (C) 20
 - (D) 22
 - (E) Answer not known

184. Tamworth and Landrace breeds of exotic pigs used for the development of following crossbred
- (A) Minnesota No.1
 - (B) Beltsville No.1
 - (C) San Pierre
 - (D) Maryland No.1
 - (E) Answer not known
185. An ideal loin eye area in meat type hogs should be
- (A) 4.5 sq.inch
 - (B) 2.0 sq.inch
 - (C) 3.0 sq.inch
 - (D) 0.5 sq.inch
 - (E) Answer not known
186. Choose the correct statement regarding swine production.
- (1) The dressing percentage of pigs at marketing age is about 65-70.
 - (2) Growing pigs gain 250-500 g of live weight per day.
 - (3) Young piglets are to be provided with 14% crude protein content in the creep ration.
- (A) (1) alone is correct
 - (B) (2) alone is correct
 - (C) (1) and (2) are correct
 - (D) (3) alone is correct
 - (E) Answer not known

187. Assertion (A) : Boars should be provided individual sty.

Reason (R) : It provides olfactory as well as stimulus through visual and auditory pheromones and stimulate oestrus in the female animals.

(A) (A) is true but (R) is false

~~(B)~~ (A) and (R) is true and (R) is the correct Reason for (A)

(C) (A) and (R) is false

(D) (A) and (R) is true and (R) is not the correct Reason for (A)

(E) Answer not known

188. _____ is a young female pig kept for breeding which has not yet been served.

(A) Gilt

~~(B)~~ Open gilt

(C) Closed gilt

(D) Yelt

(E) Answer not known

189. An average fibre diameter of fine wool is

~~(A)~~ Less than 24.5 μ

(B) Between 25 μ to 32 μ

(C) More than 35 μ

(D) Between 32 μ to 35 μ

(E) Answer not known

190. Choose the right answer

Wether is a

- (A) Castrated male pig
- (B) Uncastrated male sheep
- (C) Castrated male bovine
- (D) Castrated male sheep
- (E) Answer not known

191. Kangayam bullocks develops _____ horse power during dry ploughing.

- (A) 0.77
- (B) 0.85
- (C) 0.89
- (D) 0.90
- (E) Answer not known

192. Choose the correct statement

Challenge feeding is followed in dairy cows for the following reasons.

- (1) To increase daily milk yield.
- (2) To decrease butter fat percent.
- (3) To increase lactation length.

- (A) (1) alone is correct
- (B) (2) alone is correct
- (C) (1) and (3) are correct
- (D) (3) alone is correct
- (E) Answer not known

193. Incubation period of Japanese quail is _____ days.
- (A) 18
 - (B) 26
 - (C) 24
 - (D) 28
 - (E) Answer not known
194. The average speed of a pair of bullocks pulling a cart is _____ km per hour.
- (A) 4 – 5
 - (B) 9 – 10
 - (C) 12 – 13
 - (D) 15 – 16
 - (E) Answer not known
195. A male horse under the age of four is called as _____.
- (A) Filly
 - (B) Colt
 - (C) Foal
 - (D) Gelding
 - (E) Answer not known

196. Choose the right matches among type.

- | | | |
|--------------|---|-------------------------|
| 1. Murrah | – | Tightly curved horn |
| 2. Nili-Ravi | – | Wall eyes absent |
| 3. Surti | – | Sickle-shaped horn |
| 4. Bhadawari | – | Low fat content in milk |

- (A) (1) and (2) correct
 (B) (1) and (3) correct
(C) (2) and (3) correct
(D) (3) and (4) correct
(E) Answer not known

197. Which among the following is the floor space requirement (Covered Area/Animal) for Gilt?

- (A) 3.2 – 4.3 M²
(B) 2.2 – 3.2 M²
 (C) 1.8 – 2.7 M²
(D) 5.2 – 6.7 M²
(E) Answer not known

198. The offspring derived from crossing Muscovy with Mallard type ducks

- (A) Pekin duck
(B) Beltsville small white duck
 (C) Mule duck
(D) Embden duck
(E) Answer not known

199. Which one of the following is correctly paired?

- (A) Marwari – Gujarat
- (B) Kathiyawari – Jammu Kashmir
- ~~(C)~~ Spiti – Himachal Pradesh
- (D) Zanskari – Rajasthan
- (E) Answer not known

200. The optimum floor space requirement for buffaloes under covered area as per BIS is

- (A) 3.5 m²
 - ~~(B)~~ 4.0 m²
 - (C) 12.0 m²
 - (D) 6.0 m²
 - (E) Answer not known
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