139. In *peste des petits* ruminants

I. High fever, dullness, sneezing and serious discharge from the eye and nostril on the first day

II. Necrotic lesions develop in the mouth on second day

III. Diarrhoea develops on fourth day

IV. Dyspnoea and coughing occur later.

*Of these*

A) I and II are correct

B) I, II & III are correct

C) II, III & IV are correct

D) All are correct.

140. Which type of Anthrax is common in human being?

A) Cutaneous form

B) Pulmonary form

C) Intestinal form

D) Reproductive form.

141. World Zoonosis Day is

A) 6th July

B) 6th June

C) 6th August

D) 6th September.

142. The main route of infection in Malta fever is

A) vertical

B) venereal

C) intragenic

D) ingestion.

143. The immunosuppressive disease of drugs is

A) Rabies

B) Canine parvo

C) Canine distemper

D) Brucellosis.

144. Well disease is

A) Anthrax

B) Leptospirosis

C) Black quarter

D) Brucellosis.
145. Which one of the following lesions is not related to hog cholera?
   A) Button ulcers in intestine  B) Zebra marking in intestine
   C) Turker egg appearance of kidney  D) Infarction in spleen.

146. Liquefaction necrosis is most commonly seen in the
   A) Heart  B) Brain
   C) Kidney  D) Lung.

147. Consider the following statements:

   Assertion (A): Amyloid is a protein produced by Antigen-Antibody reaction.
   Reason (R): It is common among horses.

   Now select your answer according to the coding scheme given below:
   A) (A) is true, but (R) is false
   B) (A) and (R) are false
   C) (A) and (R) are true and (R) is the correct reason for (A)
   D) (A) and (R) are true, but (R) is the not correct reason for (A).

148. Epithelioid cells arise from
   A) Lymphocytes  B) Macrophages
   C) Plasma cells  D) Neutrophils.

149. Which of the following is not the exogenous pigmentation?
   A) Anthracosis  B) Silicosis
   C) Siderosis  D) Byssinosis.

150. Which one of the following is not the component of pus?
   A) Neutrophils  B) Necrotic tissue
   C) Irritant  D) RBCs.

151. Gradual cooling of the body after death is called
   A) Rigor mortis  B) Livor mortis
   C) Algor mortis  D) None of these.
152. "Zebra stripping" haemorrhage in large intestine is characteristic of

A) Rinder pest  
B) Brucellosis  
C) FMD  
D) None of these.

153. Bursitis in animals leads to

A) Gonitis  
B) Hygroma and capped elbow  
C) Arthritis  
D) Osteitis.

154. Match List I correctly with List II and select your answer using the codes given below:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Osteoclastoma</td>
<td>1. Basal cell tumour</td>
</tr>
<tr>
<td>b) Haemangiopericytoma</td>
<td>2. Masculinizing tumour</td>
</tr>
<tr>
<td>c) Arrhenoblastoma</td>
<td>3. Egg shell crackling tumour</td>
</tr>
<tr>
<td>d) Rodent or Jacob's ulcer</td>
<td>4. Fingerprint tumour</td>
</tr>
</tbody>
</table>

Codes:

\[ a \quad b \quad c \quad d \]

A) 3 4 2 1  
B) 3 4 1 2  
C) 2 1 4 3  
D) 1 4 2 3.

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[ Turn over
155. Match List I correctly with List II and select your answer using the codes given below the lists:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Sawdust Liver</td>
<td>1. Erysipelas species</td>
</tr>
<tr>
<td>b) Rachiocele</td>
<td>2. Diabetes mellitus</td>
</tr>
<tr>
<td>c) Vegetative Endocarditis</td>
<td>3. Focal necrosis</td>
</tr>
<tr>
<td>d) Polyuria</td>
<td>4. Hernia of spinal cord</td>
</tr>
</tbody>
</table>

**Codes:**

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) 1</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>B) 3</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C) 3</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>D) 3</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

156. The materials to be collected from the suspected cases of sodium chloride poisoning are

I. Whole Blood
II. Brain
III. Stomach contents
IV. Hair.

Of these

A) I & III are correct  
B) II & III are correct
C) I, II & III are correct  
D) All are correct.

157. Medium which is suitable for the growth of a specific organism is termed as

A) Selective medium  
B) Minimal medium
C) Complete medium  
D) None of these.
158. Which of the following antibodies is called as secretory antibody?
   A) IgG  B) IgA
   C) IgE  D) IgM.

159. *Salmonella* species reveals which of the following cultural characters on TSI (Triple Sugar Iron Agar) test?
   A) Red colour slant  B) Yellow colour butt
   C) H₂S production  D) All of these.

160. Which one of the following agents is used to inactivate the rabies virus in rabies vaccine production?
   A) Formalin  B) Zinc oxide
   C) Beta propiolactone  D) Heat inactivation.

161. Shape of the rabies virus is
   A) Brick  B) Bullet
   C) Oval  D) Spherical.

162. Lyophilisation of bacteria is attained by which of the following?
   A) Freezing  B) Freeze drying
   C) Chilling  D) Drying.

163. Mature antibody-producing cells are called
   A) Histocytes  B) T-cells
   C) Neutrophils  D) Plasma cells.

164. The blue tongue in sheep & goat is caused by
   A) Orbivirus  B) Morbilli virus
   C) Parapox virus  D) Retrovirus.

165. The extracellular infectious virus particle is called
   A) Virion  B) Elementary body
   C) Viropox  D) Viriods.
166. Immunoglobulin class produced in primary immune response is
   A) Immunoglobulin G    B) Immunoglobulin M
   C) Immunoglobulin A    D) Immunoglobulin E.

167. A parasite which produces barrel-shaped egg with bipolar plugs is
   A) Trichomonads    B) Trichuris
   C) Oxyuris        D) Bunostomum.

168. Cerebrospinal nematodiasis usually occurs in
   A) Cattle    B) Buffaloes
   C) Sheep & Goats    D) Equines.

169. Stephanurus dentatus infection in pigs is diagnosed by finding the eggs in
   A) Urine    B) Faeces
   C) Sputum    D) Nasal discharge.

170. Which of the following nematodes is required paratenic host for the completion of its life cycle?
   A) Habronema megastoma    B) Thelazia species
   C) Spirometra mansonioides    D) Spirocerca l Gupta.

171. Biopsy material required for diagnosis of theileriosis is
   A) Abomasum content    B) Liver
   C) Muscle    D) Lymph nodes.

172. The definitive host for Taenia saginata is
   A) Cattle    B) Dog
   C) Pig    D) Man.

173. All of the following statements are true in respect of hydatid disease in man except
   A) It occurs as a result of infection by Echinococcus granulosus
   B) Eggs in the dog’s faeces is the infective stage to man
   C) Man is the definitive host and he acquired the infection by handling an infected dog
   D) The metacestode form of Echinococcus granulosus in man causes disease.
174. The fly which is responsible for the nasal myiasis in sheep is
   A) *Hypoderma bovis*  B) *Musca domestica*
   C) *Oestrus ovis*     D) *Chrysomyia bezziana*.

175. The ideal drug for the treatment of liver fluke infestation in cattle is
   A) Rafoxamidé  B) Niclosamidé
   C) Albendazole  D) Ivermectin.

176. 'Sheep nasal fly' is synonymically called as
   A) Psoroptes Ovis  B) Melophagus Ovis
   C) Oestrus Ovis   D) None of these.

177. Tapeworm infection is best prevented in dogs and cats by
   A) louse control  B) flea control
   C) improved hygiene D) proper cooking.

178. *Spirocerca lupi* infection is associated with osteosarcoma and fibrosarcoma in the
   A) Liver  B) Brain
   C) Lung   D) Esophagus.

179. Saddle curve temperature is the characteristic symptom of which disease?
   A) Canine distemper  B) Rabies
   C) Both (a) & (b)   D) Infectious canine hepatitis.

180. Jaw and skull bone is affected in which disease?
   A) John's disease   B) Tuberculosis
   C) Anthrax         D) Actinomycosis.

181. Thrush is caused by
   A) *Candida albicans*  B) *Histoplasma farciminosum*
   C) *Trichophyton magnini* D) *Hebronema*.
182. Urine of horse suffering from Azoturia contains
   A) Haemoglobin  B) Myoglobin
   C) Methaemoglobin  D) Uric acid.

183. Fluorosis is characterised by
   A) Dental lesion in cattle  B) Bony exostoses on the leg
   C) Mottling of teeth  D) Overgrowth of the body.

184. The common clinical feature in pigs suffering from hypopantothenosis is
   A) Patchy alopecia & dermatitis  B) Diarrhoea
   C) Weight loss  D) Goose stepping gait.

185. Dysentery coupled with straining is the characteristic feature of
   A) Trichuriasis  B) Anthrax
   C) John's disease  D) Coccidiosis.

186. In pregnancy toxaemia condition of sheep, the suggestive treatment is
   A) Intravenous glucose injection
   B) Oral propylene glycol supplementation
   C) Oral glycerol supplementation
   D) Any one of these.

187. Stormont test is employed for diagnosis of
   A) John's disease  B) Tuberculosis
   C) Black quarter  D) Haemorrhagic septicemia.

188. Immunisation against black quarter is done
   A) during summer months  B) before onset of rains
   C) during pregnancy  D) at birth of the calf.
189. Traumatic pericarditis is associated with which of the following?
   A) Pronounced leucocytes
   B) Pronounced leucocytes with neutrophilia
   C) Pronounced leucocytes with neutropenia
   D) None of these.

190. Enteric form and myocardial form occur in which disease?
   A) Infectious canine hepatitis  B) Canine distemper
   C) Parvo disease               D) Rabies.

191. In which disease does Tonoclonic convulsion occur?
   A) Strychnine poisoning         B) Tetanus
   C) Epilepsy                     D) All of these.

192. Drug molecules move across Biological membrane by
   i. Diffusion
   ii. Filtration
   iii. Carrier mediator transport

   Of these
   A) (i), (ii) and (iii) are correct  B) (i) and (ii) are correct
   C) (ii) and (iii) are correct      D) (i) and (iii) are correct.

193. Which of following statements is not true?
   A) Tolerance develops to all the actions of a drug
   B) Acute type of tolerance is known as tachyphylaxis
   C) Species variation may be responsible for tolerance
   D) Down regulations of receptors is an important mechanism for development of tolerance.
194. Local anesthetics
   A) prevent generation and propagation of impulses
   B) affect only myelinated fibres
   C) block calcium channels
   D) have sympathomimetic actions.

195. The common Antioestrogenic compound used for the treatment of canine mammary tumour is
   A) Fluorogestone acetate
   B) Tamoxifen
   C) Delmadinone acetate
   D) Equilin.

196. The ratio of Trimethoprim : Sulfa in potentiated sulfa is
   A) 1 : 1
   B) 1 : 2
   C) 1 : 4
   D) 1 : 5.

197. Therapeutic index is calculated by using the formula
   A) LD 50/ED 50
   B) ED 50/LD 50
   C) LD 1/ED 99
   D) ED 1/LD 99.

198. Calcium disodium EDTA is the drug used in
   A) Copper poisoning
   B) Molybdenum poisoning
   C) Lead poisoning
   D) Mercury poisoning.

199. Blind stagger is the toxicity condition due to
   A) Selenium
   B) Nitrates
   C) Molybdenum
   D) Chromium.

200. Antizymotic action is seen with
   A) Ginger
   B) Turpentine oil
   C) Gentian
   D) Tannic acid.
IMPORTANT INSTRUCTIONS

1. This Booklet has a cover (this page) which should not be opened till the invigilator gives signal to open it at the commencement of the examination. As soon as the signal is received you should tear the right side of the booklet cover carefully to open the booklet. Then proceed to answer the questions.
2. This Question Booklet contains 200 questions.
3. Answer all questions.
4. All questions carry equal marks.
5. The Test Booklet is printed in four series e.g. [A] [B] [C] or [D] (See top left side of this page). The candidate has to indicate in the space provided in the Answer Sheet the series of the booklet. For example, if the candidate gets [A] series booklet, he/she has to indicate in the side 2 of the Answer Sheet with Blue or Black Ink Ball point pen as follows:

   [A] [B] [C] [D]

6. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
7. An Answer Sheet will be supplied to you separately by the Invigilator to mark the answers. You must write your Name, Register No. and other particulars on side 1 of the Answer Sheet provided, failure of which your Answer Sheet will not be evaluated.
8. You will also encode your Register Number, Subject Code etc., with Blue or Black Ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, your Answer Sheet will not be evaluated.
9. Each question comprises four responses (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
10. In the Answer Sheet there are four brackets [A] [B] [C] and [D] against each question. To answer the questions you are to mark with Ball point pen ONLY ONE bracket of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. e.g. If for any item, (B) is the correct answer, you have to mark as follows:

       [A] [B] [C] [D]

11. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.
13. Do not tick-mark or mark the answers in the Question Booklet.
1. The conception rate of cattle in India by AI is about
   A) 40%  
   B) 70%  
   C) 10%  
   D) 80%.

2. The postmortem discolouration of the carcass is called
   A) Rigor mortis  
   B) Algor mortis  
   C) Livor mortis  
   D) All of these.

3. Sexual assault on animals is called as
   A) Maiming  
   B) Bestiality  
   C) Brutality  
   D) Cruelty.

4. The request for postmortem examination of veterinary cases should be signed by
   A) Head of the Institution  
   B) Police Inspector  
   C) Magistrate  
   D) Inspector or Magistrate.

5. Under Prevention of Cruelty to Animals Act, 1960, penalty for practising phooka or injecting any substance to improve lactation in milch animal is
   I. fine up to Rs. 1,000/-
   II. imprisonment up to 2 years
   III. the animal shall be forfeited to the government
   IV. warning for the animal owner.

   Of these statements
   A) I alone correct  
   B) II alone correct  
   C) I, II & III are correct  
   D) All are correct.

6. As per 17th livestock census the crossbred cattle population in Tamil Nadu is
   A) 4.1 millions  
   B) 4.8 millions  
   C) 5.1 millions  
   D) 5.5 millions.
7. Large scale crossbreeding program was started by ICAR with FAO and PL-480 during the year
   A) 1963         B) 1967
   C) 1960         D) 1969.

8. Key village scheme for livestock improvement was launched during
   A) 1st Five-Year Plan         B) 2nd Five-Year Plan
   C) 3rd Five-Year Plan         D) 4th Five-Year Plan.

9. Bestiality is punishable under the Section
   A) Indian Penal Code 429      B) Indian Penal Code 377
   C) Indian Penal Code 428      D) Indian Penal Code 420.

10. Fraud in the sale of livestock is punishable under the Section
    A) Indian Penal Code 484      B) Indian Penal Code 193
    C) Indian Penal Code 269      D) Indian Penal Code 420.

11. Which of the following animals has silent heat?
    A) Cow          B) Buffalo
    C) Goat         D) Sheep.

12. The percentage of abnormal spermatozoa in a normal bull should not exceed
    A) 21 – 56%      B) 5 – 12%
    C) 15 – 20%      D) 26 – 30%.

13. Measure of phenotypic value of the individual candidate for selection is called
    A) Performance testing    B) Pedegree selection
    C) Show ring selection    D) Progeny testing.

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14. Primary effect of selection in a population is to
   A) maintain constant level of population
   B) increase the number of homozygote
   C) increase the gene frequency of desirable genes
   D) decrease heterozygosity.

15. Mutation in which one base replaced by another base is termed
   A) Addition        B) Deletion
   C) Translocation   D) Substitution.

16. Progeny test is useful for selection of
   A) Sex-limited trait  B) Sex-influenced trait
   C) Qualitative trait  D) Sex-linked trait.

17. Matting of related animal is called
   A) Out-breeding       B) Inbreeding
   C) Random breeding    D) Cross-breeding.

18. Match List I with List II correctly and select your answer using the codes given below:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Selection response</td>
<td>1) Selection plateau</td>
</tr>
<tr>
<td>b) Selection differential</td>
<td>2) A point above which all the individuals</td>
</tr>
<tr>
<td>c) Selection intensity</td>
<td>are selected</td>
</tr>
<tr>
<td>d) Selection limit</td>
<td>3) Genetic gain</td>
</tr>
<tr>
<td>e) Truncation selection</td>
<td>4) Standardised selection differential</td>
</tr>
<tr>
<td></td>
<td>5) Superiority of selected parents</td>
</tr>
</tbody>
</table>

Codes:

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
19. Traits of economic importance in livestock are
   I. Quantitative traits
   II. Controlled by many genes
   III. Greatly influenced by environment
   IV. Mostly affected by additive and non-additive gene action.
   Of these
   A) I, II & III are correct
   B) II, III & IV are correct
   C) I, II & IV are correct
   D) All are correct.

20. Cross-breeding increases
   A) Heterozygosity
   B) Homozygosity
   C) Additive gene action
   D) Relationship.

21. Meat type sheep are selected based on the body weight at
   A) Three months
   B) Six months
   C) Nine months
   D) Twelve months.

22. Selection of individual on the basis of average performance of offspring is
   A) Pedigree selection
   B) Individual selection
   C) Progeny testing
   D) Family selection.

23. The distinguishing feature between Sahiwal and Red Sindhi is
   A) Loose skin
   B) Lighter colour muzzle
   C) Reddish dun colour
   D) Massive hump.

24. The limitation of feeding of paddy straw to ruminant is/are
   A) Zero digestible protein content
   B) High lignin
   C) High oxalate
   D) All of these.
25. Which one of the following pairs is not correctly matched?

A) Curled toe paralysis — Riboflavin
B) Encephalomalacia — Vitamin E
C) Foot pad dermatitis — Niacin
D) Star grazing — Thiamine.

26. The component of proximate principle which is calculated and not analysed in the laboratory is

A) Crude protein
B) Crude fibre
C) Ether extractive
D) Nitrogen free extractive.

27. Match List I with List II correctly and select your answer using the codes given below:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Antoine Lavosier</td>
<td>1) Crude protein</td>
</tr>
<tr>
<td>b) Kjeldhal</td>
<td>2) Ether extract</td>
</tr>
<tr>
<td>c) Soxhlet</td>
<td>3) Fibre fractionation</td>
</tr>
<tr>
<td>d) Van Soest</td>
<td>4) Father of nutrition</td>
</tr>
</tbody>
</table>

Codes:

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td>4</td>
<td>2</td>
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<tr>
<td>C</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

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28. Consider the following statements:

Assertion (A): Feeding of high roughage diet increases milk fat content than feeding high concentrate diet.

Reason (R): Propionic acid is the precursor for the milk fat synthesis.

Now select your answer according to the coding scheme given below:

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

29. Match List I with List II correctly and select your answer using the codes given below:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Wool</td>
<td>1) Lecithin</td>
</tr>
<tr>
<td>b) Albumin</td>
<td>2) Globular protein</td>
</tr>
<tr>
<td>c) Xanthine oxidase</td>
<td>3) Keratin</td>
</tr>
<tr>
<td>d) Phospholipid</td>
<td>4) Metalloenzyme.</td>
</tr>
</tbody>
</table>

Codes:

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

A) 3 1 4 2
B) 3 2 4 1
C) 1 2 4 3
D) 2 3 4 1.
30. Which one of the following is not a trace mineral element?
   A) Iodine                B) Manganese
   C) Cobalt               D) Calcium

31. Which one of the vitamins listed below is not synthesized by ruminants?
   A) Riboflavin           B) Biotin
   C) Pyridoxine           D) Vitamin A

32. Electric method of stunning is done at
   A) 75 MV and 250 mA     B) 75 V and 250 A
   C) 75 V and 250 mA     D) 75 MV and 250 A

33. "AVIDIN" a factor present in egg white prevents the absorption of
   A) Folic acid          B) Pantothenic acid
   C) Biotin              D) Vitamin C

34. A feedstuff is classified as a roughage when it has
   A) more than 18% protein   B) more than 18% crude fibre
   C) less than 18% crude fibre D) less than 18% crude protein

35. The cotton seed cake is not considered suitable for feeding to calves as it contains
   A) Aflatoxins           B) Gossypol
   C) Ricin                D) Hydrocyanic acid

36. Which of the following animals has maximum pulse rate?
   A) Horse                B) Cattle
   C) Pig                  D) Dog

37. Burning of long hairs of animals is called as
   A) Bishoping            B) Hogging
   C) Singeing             D) Shearing
38. Avian influenza is caused by
   A) Orthomyxovirus  B) Paramyxovirus
   C) Retrovirus      D) Herpes virus.

39. Brooder house temperature for first week is
   A) 110° F          B) 95° F
   C) 95° C           D) 110° C.

40. The better time for dehorning a dairy calf is .............. of age.
   A) three months    B) day of birth
   C) fourth week     D) second week.

41. Castration of buckling should be done usually at the age of
   A) 1 – 2 weeks     B) 2 – 4 weeks
   C) 6 – 10 weeks    D) 6 months.

42. Vent method of sexing in chicks is done on the
   A) 5th day         B) 8th day
   C) 1st day         D) 3rd day.

43. Permanent hardness of water is due to
   A) Magnesium sulphate  B) Magnesium carbonate
   C) Calcium carbonate  D) None of these.

44. Which of the following animals has a gestation period of three months, three weeks and three days?
   A) Cat              B) Dog
   C) Sheep            D) Pig.

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45. Which of the following is correctly matched?
   A) The act of parturition in cattle — Lambing
   B) The act of parturition in goat — Kidding
   C) The act of parturition in cat — Whelping
   D) The act of parturition in dog — Queening.

46. Which of the following is used for increase in milk production?
   A) Alpha casein
   B) Beta casein
   C) Gamma casein
   D) Iodinated casein.

47. Which of the following is correctly matched?
   A) Pasteurisation — Reductase
   B) Water adulteration — Lactometer
   C) Mastitis — Phosphatase
   D) Bacteriological count — Catalase.

48. Synthetic milk is prepared with the addition of
   A) Vegetable fat
   B) Detergent powder
   C) Urea
   D) All of these.

49. The anti-oxidant used in ghee to prevent the oxidation of fat is
   A) Calcium chloride
   B) Sodium alginate
   C) Mono- and diglycerides
   D) Butylated hydroxy anisole.

50. Ripening of cheese is done for 2 to 3 months at ................. °C.
   A) 0 to 6
   B) 15 to 21
   C) –5 to –10
   D) 18 to 20.

51. Which is the basic structural and functional unit of milk synthesis?
   A) Alveoli
   B) Lobules
   C) Gland cistern
   D) Myoepithelial cells.
52. The composition of single toned milk is
   A) Minimum 3% fat and Minimum 8·5% SNF
   B) Minimum 1·5% fat and Minimum 9·0% SNF
   C) Minimum 4·5% fat and Minimum 8·5% SNF
   D) Minimum 4% fat and Minimum 8·5% SNF.

53. Ice-cream without hardening process is called
   A) Kulfi                B) Softy
   C) Irish cream         D) None of these.

54. The next section in pasteurization after holding is
   A) Cooling             B) Heating
   C) Regeneration        D) None of these.

55. Natural acidity of milk is due to
   A) Casein and phosphates B) Lactic acid
   C) Bacteria             D) Mould.

56. The milk most suitable for the preparation of Khoa is
   A) Cow milk             B) Buffalo milk
   C) Goat milk            D) Sheep milk.

57. Radiation and pasteurization
   A) inactivate performed botulinum toxin
   B) do not inactivate performed botulinum toxin
   C) partially inactivate preformed botulinum toxin
   D) none of these.

58. Which one yields highest dressing percentage?
   A) Buffalo              B) Pig
   C) Goat                 D) Sheep.
59. A high speed of freezing tends to
   A) enhance tenderness
   B) decrease tenderness
   C) neither enhance nor decrease tenderness
   D) none of these.

60. Minimal meat/meat equivalent food (g/day) required for average human beings is
   A) 225               B) 325
   C) 125               D) 55.

61. Match List I with List II correctly and select your answer using the codes given below:

   **List I**             **List II**
   a) Wood smoke         1) Rumen
   b) Bloom              2) Formaldehyde
   c) Tripe              3) Canned product with cereals
   d) Luncheon meat      4) Bright red colour

   **Codes**:
   \[ a \quad b \quad c \quad d \]
   A) 2  4  3  1
   B) 2  1  3  4
   C) 2  4  1  3
   D) 1  3  4  2.

   **Turn over**
62. Which of the following is not the main objective of ante-mortem inspection?
   A) Body score of the animal
   B) Identifying animal suffering from zoonotic disease
   C) Identifying notifiable disease in the animal
   D) Identifying general systemic disturbance of the animal.

63. Vitamin which is affected during cooking to a higher level is
   A) Thiamine
   B) Riboflavin
   C) Niacin
   D) Pantothenic acid.

64. Rigor mortis does not occur in carcass died due to
   A) Foot and mouth disease
   B) Anthrax
   C) Rinder pest
   D) All of these.

65. The ideal temperature required for scaling in pigs is
   A) 40 – 43°C
   B) 50 – 53°C
   C) 60 – 63°C
   D) 70 – 73°C.

66. Musky odour is present in
   A) Beef
   B) Cara beef
   C) Mutton
   D) Pork.

67. Carcass examination facilitates eliminating the meat infested with
   A) Measly cysts
   B) Trichnid cysts
   C) Tubercule nodules
   D) All of these.

68. The degree to which an innovation is perceived as being better than the idea it supersedes is
   A) Relative advantage
   B) Compatibility
   C) Complexity
   D) Trialability.
69. Extension teaching is
   A) horizontal                  B) vertical
   C) horizontal and vertical     D) diagonal.

70. One single factor which determines the success/failure of an extension programme is
   A) Innovators                  B) Leadership

71. For active transfer of technology which of the following communication methods are used?
   A) Individual & Group          B) Mass & Individual

72. Adoption of practices was high when more than ................ communication methods are used.
   A) two                         B) three
   C) four                        D) five.

73. The selection of Lay leaders is based on
   A) Sociometric test            B) Election
   C) Group observer              D) All of these.

74. The father of dairy cooperatives in India is
   A) Amrita Patel                B) Varghese Kurien
   C) M. S. Swaminathan           D) Lal Bahadur Shastri.

75. The term 'extension education' was introduced in the University of
   A) Calcutta                    B) Madras

76. Who seems to have no confidence in himself, if at all possible he puts of decision making. He is often a rationalizer
   A) Laissez-faire leader        B) Democratic leader
   C) Autocratic leader          D) Popularity leader.
77. As a program officer which method will you choose from the following to study the reaction of farmers to Government program like IRDP?
   A) Survey method            B) General meeting
   C) Farm and home visit      D) Questionnaire method.

78. Which of the following statements about teaching methods are not true?
   i. Exhibition is the best method to teach illiterates
   ii. No teaching aid can suit for all situations
   iii. Television talk is a powerful, group teaching method
   iv. Teaching aids like computer can replace the teacher.
   Of these
   A) (i) and (ii) are correct      B) (ii) and (iii) are correct
   C) (iii) and (iv) are correct   D) (iv) and (i) are correct.

79. In the breakeven point, MC is equal to
   A) AFC                          B) AVC
   C) ATC                          D) None of these.

80. According to 17th livestock & poultry census of Tamil Nadu, the distribution of cattle and its percentage of increase over previous census for cattle were
   A) 91,41,043.1-04%              B) 88,44,342.5-05%
   C) 80,42,144.6-80%             D) 98,44,452.7-81%.

81. The satisfaction of human want on the use of goods and services is known as
   A) Distribution                B) Exchange
   C) Consumption                D) Production.

82. An example of working asset is
   A) Land                        B) Building
   C) Farm house                 D) Farm machinery.

83. The pattern of co-operative system followed by AAVIN is
   A) Gujarat pattern            B) Anand pattern
   C) Mathura pattern            D) Delhi pattern.
84. Shut-down point is the minimum point of
   A) Average fixed cost     B) Average variable cost
   C) Marginal cost         D) Average cost.

85. The depreciation per cent consider for milch animal in the second lactation is
   A) no depreciation       B) 10%
   C) 20%                   D) 5%.

86. Goods that lead to easy living are called
   A) Luxuries              B) Comforts
   C) Necessaries          D) None of these.

87. Total fixed cost is
   A) Total cost - invariable cost
   B) Total cost - total variable cost
   C) Total variable cost - total cost
   D) None of these.

88. In India, the piggery enterprise is in the hands of
   A) economically weaker section
   B) middle class people
   C) economically sound section
   D) none of these.

89. The maximum egg production state in India is
   A) Tamil Nadu              B) Madhya Pradesh
   C) Uttar Pradesh           D) Andhra Pradesh.

90. .................. organ is called as Voice Box.
   A) Larynx                  B) Pharynx
   C) Epiglottis              D) Trachea.

91. Synsacrum found in which of the following?
   A) Cow                      B) Horse
   C) Fowl                     D) Dog.

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   | Turn over
92. Heparin accelerates the activity of
   A) Antithrombin III  B) Antithrombin X
   C) Antithrombin IV  D) None of these.

93. The abdomen is lined by the serous membrane known as
   A) Diaphragm  B) Peritoneum
   C) Pericardium  D) Lamina externa.

94. The osseous part of the nasal septum is formed by
   A) Turbinates  B) Nasal bones
   C) Perpendicular plate of Ethmoid  D) Maxilla.

95. Elastic cartilage is seen in
   A) Trachea  B) Epiglottis
   C) Costal cartilage  D) Intervertebral disc.

96. Os penis is present in
   A) Ox  B) Horse
   C) Dog  D) Fowl.

97. Ilium, ischium and pubis of os coxae meet to form
   A) Coccyloid cavity  B) Tuber coxae
   C) Acetabulum  D) Ischial arch.

98. Heart is supplied by
   A) Coronary arteries  B) Aorta
   C) Pulmonary artery  D) Bronchiocephalic trunk.

99. Recurrent laryngeal nerve is the branch from
   A) Facial nerve  B) Vagus nerve
   C) Hypoglossal nerve  D) Glossopharyngeal nerve.

100. Which artery is present in Ox and absent in Sheep and Goats?
    A) Facial  B) Caudal auricular
     C) Transverse facial  D) Caudal ophthalmic.
101. Nucleated RBC is present in
   A) Dog
   B) Horse
   C) Cat
   D) Birds.

102. When the cow is in standing position, most blood returns from mammary gland to heart via
   A) Milk vein
   B) Perineal vein
   C) Pudic vein
   D) All of these.

103. In blood transfusion, major cross matching is tested between
   A) Donor's cell and Recipient's plasma
   B) Donor's plasma and Recipient's cell
   C) Donor's and Recipient's plasma
   D) Donor's and Recipient's cell.

104. Hold-up of milk is caused by excess secretion of
   A) Oxytocin
   B) Renin
   C) Progesterone
   D) Adrenaline.

105. Factor(s) that inhibit(s) gastric secretion is/are
   A) Acidity, fluidity and distension of duodenum
   B) Secretin
   C) Cholecystokinin (CCK)
   D) All of these.

106. Summer sleep is termed as
   A) Estivation
   B) Hibernation
   C) Acclimation
   D) Acclimatization.

107. The net yield of ATP produced after the complete oxidation of one mole of glycerol is
   A) 27
   B) 21
   C) 29
   D) 22.
108. The absorption of sodium in the distal tubule is due to
   A) Aldosterone  B) ADH
   C) Cortisone    D) Gastrin.

109. The volume of urine formed is regulated by the rate of
   A) Glomerular filtration
   B) Tubular reabsorption
   C) Changes in glomerular blood pressure
   D) All of these.

110. Vagus nerve fibres are
    A) Motor
    B) Sensory
    C) Mixed
    D) None of these.

111. Collimator in an X-ray machine decides the
    A) Field of radiation
    B) Distance of radiation
    C) Pattern of radiation
    D) Direction of X-rays.

112. Duration of local anesthesia can be enhanced by addition of
    A) Hyaluronidase
    B) Adrenaline
    C) Atropine sulphate
    D) Dexamethasone.

113. Hyovertebrotomy surgical procedure is carried out for
    A) Otitis interna
    B) Guttural pouch
    C) Hydrocephalus
    D) Poll evil.

114. Filletting is surgical
    A) amputation of digit in canine
    B) amputation of tail in canine
    C) amputation of mammary gland in canine
    D) amputation of limb in canine.
115. To prepare 5% thiopental anesthetic drug with the 2.5 gm vial package, how much distilled water do you need?

A) 5 ml  
B) 50 ml  
C) 100 ml  
D) 20 ml.

116. The suture pattern used for intestinal anastomosis is

A) Quill Suture  
B) Vertical Mattress Suture  
C) Purse String Suture  
D) Gambee Suture.

117. Which of the following inhalation agent is most potent?

A) Halothane  
B) Nitrous Oxide (N₂O)  
C) Isofluorane  
D) Methoxy fluorane.

118. Which of the following would cause an X-ray film to be too dark after processing?

A) Two film in a cassette  
B) Film stored in the area of high temperature  
C) Focal distance long  
D) mA too low.

119. Site of injection for corneal nerve block is

A) over the zygomatic arch between the lateral canthus of eye to the base of the ear  
B) middle of the supraorbital fossa  
C) base of the horn  
D) 2–3 cms in front of the horn base below the frontal ridge.

120. Rumenotomy can be performed in cattle in standing position by

A) Paravertebral nerve block  
B) Anterior epidural anaesthesia  
C) Xylazine-ketamine anaesthesia  
D) Pudental nerve block.
121. Inability to close the eyes is termed as
   A) Panophthalmia     B) Lagophthalmia
   C) Ptosis             D) Ectropion.

122. One of the important managemental factors for lowered fertility is
   A) improper detection of heat
   B) silent heat
   C) anoestrus
   D) improper artificial insemination.

123. A major problem associated with induced calving is
   A) Ovarian cysts
   B) Postpartum anoestrus
   C) Retained placenta
   D) Postpartum uterine infection.

124. Polyoestrus cycle is not observed in
   A) Cattle         B) Sheep
   C) Bitch          D) Camel.

125. In “impotentia generandi” disorder of bulls, which of the following conditions is not true?
   A) No sex drive
   B) Low fertile
   C) Pathological condition of the testes observed
   D) Pathological condition of the epididymis observed.

126. Which of the following conditions is not a disorder of parturition?
   A) Foetal maceration       B) Prolapse
   C) Uterine inertia         D) Uterine torsion.

127. Which hormone is not produced by ovine ovary?
   A) Estradiol              B) Inhibin
   C) Progesterone           D) Prolactin.
128. Which one of the following is correct?

A) Maternal dystokia occurs less frequently than foetal dystokia in cattle
B) Foetal dystokia is less frequent than maternal dystokia in cattle
C) Foetal dystokia and maternal dystokia are more common in cattle
D) Maternal dystokia is absent in cattle.

129. Duration of oestrus in bitch is

A) 5 – 7 days  B) 6 – 8 days
C) 9 days      D) 2 – 4 days.

130. Correct time of insemination in a cow for optimum fertility is

A) At the end of oestrus  B) 12 hours after onset of oestrus
C) 6 hours after onset of oestrus  D) At the beginning of oestrus.

131. Thick transparent mucoid discharge from the vagina of a cow or buffalo indicates

A) Vaginitis  B) Endometritis
C) Pyometra  D) Heat period.

132. The seminal vesicles are absent in

A) Bull  B) Dog
C) Stallion  D) Boar.

133. FMD vaccination should be given at the age of

A) four months  B) one year
C) two months  D) eight months.

134. Alternate passage of infectious agent from one species of an animal to another species is known as

A) Vertical transmission  B) Zig-zag transmission
C) Cyclopropagate transmission  D) Propagate transmission.
135. .................. disease belongs to the class of direct Zoonosis.
   A) Q fever  
   B) Scarlet fever 
   C) Tuberculosis  
   D) Rabies.

136. Match List I correctly with List II and select your answer using the codes given below the lists:

<table>
<thead>
<tr>
<th>List I</th>
<th>List II</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Abortion Storm</td>
<td>1. <em>Streptobacillus moniliformis</em></td>
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<tr>
<td>b) Ghon Focus</td>
<td>2. <em>Afpia</em> and <em>Bartonella</em> sps.</td>
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<tr>
<td>c) Rat Bite Fever</td>
<td>3. Tuberculosis</td>
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<tr>
<td>d) Cat Scratch Disease</td>
<td>4. Leptospirosis</td>
</tr>
</tbody>
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Codes:

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137. Select the incorrect statement of the following diseases:
   A) *Babesia microti* is not a zoonotic disease in splenectomised cases
   B) Antigenic variation is present in the *Trypanosoma*
   C) Bubonic plague is caused by *Yersinia pestis*
   D) Fading puppy syndrome is caused by canine herpes virus.

138. Blue Bag disease is caused by
   A) *Pasteurella haemolytica*  
   B) *Pasteurella multocida* 
   C) *Corynebacterium species*  
   D) *Staphylococcus species*.