

**NOTE : DO NOT BREAK THE SEAL UNTIL YOU GO THROUGH THE  
FOLLOWING INSTRUCTIONS**

**M.V.Sc. Entrance Test – 2012**  
**QUESTION BOOKLET**  
**Paper — I**

Roll No.

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(Enter your Roll Number in the above space)

Series

Booklet No.

**A**

**200054**

**Time Allowed : One Hour and Forty minutes**

**Max. Marks : 100**

**INSTRUCTIONS :**

1. Use only BLACK or BLUE Ball Pen.
2. All questions are COMPULSORY.
3. Check the BOOKLET thoroughly.

IN CASE OF ANY DEFECT - MISPRINTS, MISSING QUESTION/S OR DUPLICATION OF QUESTION/S, GET THE BOOKLET CHANGED WITH THE BOOKLET OF THE SAME SERIES. NO COMPLAINT SHALL BE ENTERTAINED AFTER THE ENTRANCE TEST.

4. Before you mark the answer, fill in the particulars in the ANSWER SHEET carefully and correctly. Incomplete and incorrect particulars may result in the non-evaluation of your answer sheet by the technology.
5. Write the SERIES and BOOKLET No. given at the TOP RIGHT HAND SIDE of the question booklet in the space provided in the answer sheet by darkening the corresponding circles.
6. Do not use any eraser, fluid pens, blades etc., otherwise your answer sheet is likely to be rejected whenever detected.
7. After completing the test, handover the ANSWER SHEET to the Invigilator.

SEAL

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1. Group of cells morphologically similar and physiologically identical is known as
    - (1) Tissue
    - (2) Organ
    - (3) System
    - (4) Histocytes
  2. Blood vessels are internally lined by
    - (1) Ciliated epithelium
    - (2) Columnar epithelium
    - (3) Squamous epithelium
    - (4) Striated epithelium
  3. Connective tissue called Glisson's capsule is found in
    - (1) Testis of rabbit
    - (2) Liver of rabbit and pig
    - (3) Spleen
    - (4) Pancreas
  4. The antlers of a deer is made of, one of the following, named
    - (1) Cartilage
    - (2) Corneum
    - (3) Bone
    - (4) Sesamoid bone
  5. During hibernation the body temperature of the warm blooded animal remains
    - (1) Same as that of surroundings.
    - (2) Normal because the accumulated fat under the skin prior to hibernation.
    - (3) Normal because skin can regulate it.
    - (4) Slightly higher than that of the surroundings due to the combined action by skin and the deposited fat beneath it.
  6. The pygostyle bone is
    - (1) Present in skull of bird
    - (2) Last caudal vertebrae of bird
    - (3) Last caudal vertebrae of frog
    - (4) Last caudal vertebrae of rabbit
  7. The major constituent of vertebrate bone is
    - (1) Calcium phosphate
    - (2) Sodium chloride
    - (3) Potassium hydroxide
    - (4) Calcium carbonate
  8. The functional unit of the contractile system in the striped muscle is
    - (1) Z-band
    - (2) A-band
    - (3) Myofibrils
    - (4) Sarcomere
-

9. Wave of muscle contraction which pushes food along the alimentary canal is known as
- (1) Absorption (2) Digestion  
(3) Peristalsis (4) Secretion
10. Which one of the following tissues, is having branching fibres?
- (1) Cardiac muscle (2) Cartilage  
(3) Smooth muscle (4) Skeletal muscle
11. Tendons and ligaments are made of
- (1) Connective tissue (2) Epithelial tissue  
(3) Muscular tissue (4) Skeletal tissue
12. Which one of the following is responsible for the regeneration of cartilage?
- (1) Collagenous fibres (2) Blood vessel  
(3) Perichondrium (4) Matrix
13. The bone marrow is composed of
- (1) Muscle fibres and adipose tissue  
(2) Areolar tissue and adipose tissue  
(3) Adipose tissue and calcified cartilage  
(4) Adipose tissue, areolar tissue and blood vessels
14. Which of the following forms the muscle?
- (1) Neurofibril (2) Neurilemma  
(3) Myofibril (4) Sarcolemma
15. Bolus of food undergoing digestion in acidic medium media in stomach is called
- (1) Acidified bolus (2) Bile bolus  
(3) Chyle (4) Chyme
16. One of the following is specific function of the liver. Mark it
- (1) Excretion (2) Glycogenolysis  
(3) Digestion (4) Histolysis
-

17. Digestion of carbohydrates is affected by
- |             |               |
|-------------|---------------|
| (1) Erepsin | (2) Steapsin  |
| (3) Pepsin  | (4) Amylopsin |
18. Name the main component of the food, in the absence of that one cannot live
- |                   |                   |
|-------------------|-------------------|
| (1) Carbohydrates | (2) Mineral salts |
| (3) Proteins      | (4) Vitamins      |
19. Which of the following processes makes direct use of oxygen?
- |                              |                        |
|------------------------------|------------------------|
| (1) Glycolysis               | (2) Fermentation       |
| (3) Kreb's citric acid cycle | (4) Electron transport |
20. The impulse for voluntary muscles for forced breathing starts in
- |                           |                 |
|---------------------------|-----------------|
| (1) Medulla (Pons varoli) | (2) Vagus nerve |
| (3) Cerebral hemisphere   | (4) Spinal cord |
21. Rate of respiration is directly affected by
- |                             |                                     |
|-----------------------------|-------------------------------------|
| (1) Concentration of oxygen | (2) Concentration of carbon dioxide |
| (3) Oxygen in trachea       | (4) Diaphragm expansion             |
22. The formation of blood cells in bone marrow is called
- |                      |                   |
|----------------------|-------------------|
| (1) Erythroblastosis | (2) Haemolysis    |
| (3) Haemopoiesis     | (4) Lymphopoiesis |
23. An active milk gland typically contains
- |                         |                                       |
|-------------------------|---------------------------------------|
| (1) Cristae             | (2) Simple columnar mucous epithelium |
| (3) Clusters of alveoli | (4) Villi                             |
24. Junction of two neurons is called
- |              |                 |
|--------------|-----------------|
| (1) Synapse  | (2) Synapsis    |
| (3) Junction | (4) Synapticula |
25. The entire nerve is enclosed by a white thick sheath of a connective tissue, called
- |                 |                 |
|-----------------|-----------------|
| (1) Endoneurium | (2) Epineurium  |
| (3) Neurilemma  | (4) Perineurium |
-

26. Flat body of animals of phylum Platyhelminthes enables the animal
- (1) To compensate for their primitive digestive and excretory system
  - (2) To adjust for their parasitic mode of life
  - (3) To reproduce asexually
  - (4) To help in crawling
27. Bladder worm is also known as
- (1) Sporocyst
  - (2) Cystecercus
  - (3) Onchosphere
  - (4) Hexacanth
28. Cestodes are lacking of one system
- (1) Digestive
  - (2) Excretory
  - (3) Reproductive
  - (4) Nervous
29. Roundworms differ from flatworms in having
- (1) Pseudocoel
  - (2) Longitudinal nerve cord
  - (3) Circulatory system
  - (4) Flame cells
30. Which one of the following animals can digest milk by the presence of rennin in its stomach?
- (1) A calf
  - (2) A cow
  - (3) Any mammal
  - (4) A man
31. Digestion of starch takes place in
- (1) Stomach and duodenum
  - (2) Buccal cavity and duodenum
  - (3) Buccal cavity and oesophagus
  - (4) Duodenum only
32. The essential mineral for the formation of body protein is
- (1) Sodium
  - (2) Sulphur
  - (3) Iron
  - (4) Potassium
33. The antihæmorrhagic vitamin which is essential for clotting or coagulation of blood is
- (1) Vitamin C
  - (2) Vitamin D
  - (3) Vitamin E
  - (4) Vitamin K

34. Vitamin B12 is helpful
- (1) In the absorption of fats
  - (2) To stimulate the liver
  - (3) To stimulate the bone marrow
  - (4) To increase life span of RBC
35. Pellagra is caused due to the deficiency of
- (1) Thiamine
  - (2) Ascorbic acid
  - (3) Niacin
  - (4) Calciferol
36. Synthesis of vitamin A takes place in
- (1) Blood
  - (2) Spleen
  - (3) Pancreas
  - (4) Liver
37. In grazing cattles the major portion of food, cellulose is
- (1) Passed out undigested
  - (2) Digested by animal itself
  - (3) Utilized directly as such
  - (4) Digested by intestinal bacteria
38. Release of gastro-intestinal secretion and movement after ingestion of food is brought about by
- (1) Sympathetic nervous system
  - (2) Parasympathetic nervous system
  - (3) Central nervous system
  - (4) Thyroid membrane
39. Cow's milk is slightly yellowish in colour due to the presence of
- (1) Riboflavin
  - (2) Carotin
  - (3) Xanthophylls
  - (4) Xanthophylls and carotin
40. The stomach of ruminants is mainly divided into four parts, but in camel which one part is missing?
- (1) Abomasums
  - (2) Omasum
  - (3) Reticulum
  - (4) Rumen
41. Live stock includes
- (1) Cow, ox, buffalo, goat, sheep, pig and horse
  - (2) Cow, ox, buffalo, horse and fowl.
  - (3) Cow, ox, goat, pig, fowl, horse
  - (4) Cow, buffalo, ox, fowl, sheep, pig and horse

42. Secretin hormone is secreted by
- |               |              |
|---------------|--------------|
| (1) Liver     | (2) Pancreas |
| (3) Intestine | (4) Duodenum |
43. The lymph differs from the blood in having
- |                                      |
|--------------------------------------|
| (1) Blood with more RBC and less WBC |
| (2) Blood without plasma             |
| (3) Plasma without proteins          |
| (4) Blood with no RBC but more WBC   |
44. In which form the carbon dioxide is carried in the blood?
- |                         |                           |
|-------------------------|---------------------------|
| (1) Sodium carbonate    | (2) Sodium bicarbonate    |
| (3) Potassium carbonate | (4) Magnesium bicarbonate |
45. The type of leucocytes which attack and engulf Bacteria in the blood are
- |                 |                |
|-----------------|----------------|
| (1) Neutrophils | (2) Acidophils |
| (3) Basophils   | (4) Monocytes  |
46. Excretion in the form of uric acid and urates in birds, is helpful in
- |                           |                              |
|---------------------------|------------------------------|
| (1) Conserving body heat  | (2) Eliminating excess water |
| (3) Conserving body water | (4) Eliminating body water   |
47. Which one of the following hormones promotes reabsorption of water?
- |                |                 |
|----------------|-----------------|
| (1) Calcitonin | (2) Vasopressin |
| (3) Oxytocin   | (4) Relaxin     |
48. Reabsorption of useful substances back into the blood from the filtrate in a nephron occurs in
- |                                |                     |
|--------------------------------|---------------------|
| (1) Proximal convoluted tubule | (2) Loop of Henle   |
| (3) Distal convoluted tubule   | (4) Collecting duct |
49. Blood clotting can be prevented by the use of Potassium oxalate. It is due to
- |   |
|---|
| (1) Checking of conversion of fibrinogen into fibrin  |
| (2) Inactivation of all factors for blood coagulation |
| (3) Neutralization of acidic medium                   |
| (4) Removal of free calcium ions                      |
-



50. Heart beats are accelerated by  
(1) Cranial nerves and acetylcholine (2) Sympathetic nerves and epinephrine  
(3) Cranial nerves and adrenalin (4) Sympathetic nerves and acetylcholine
51. Which one of the following is responsible for the control of reflex action?  
(1) Motor nerves (2) Sensory nerves  
(3) Central nervous system (4) Sympathetic nervous system
52. The chemical causing the transmission of nerve impulse across synapsis is  
(1) Acetylcholine (2) Choline esterase  
(3) Choline (4) Acetic acid
53. When degeneration of nerve cells occurs which will be affected first?  
(1) Dendrites (2) Motor and plates  
(3) Nissil granules (4) Schwann cells
54. In the chemistry of vision in mammals the photosensitive substance is called  
(1) Sclerotin (2) Rhodopsin  
(3) Retinol (4) Melanin
55. Hormone responsible for the control of the development of secondary sexual characters in a female is  
(1) Estrogen (2) Androgen  
(3) Progestrin (4) Oxytocin
56. Hormone involved in the discharge of pancreatic juice in mammals is  
(1) Gastrin (2) Cholecytokinin  
(3) Entergasterone (4) Secretin
57. Which of the following is a non-infectious disease caused due to overfeeding or a diet too rich in starch?  
(1) Anthrax (2) Actinomycosis  
(3) Apoplexy (4) Aspergillosis

58. If there is deficiency of antidiuretic hormone (ADH), its effect would be
- (1) The volume of urine will decrease
  - (2) The volume of urine will increase
  - (3) The pH of urine will change from 4.8 to 8.0
  - (4) Secretion of urochrome will take place
59. Hormones thyroxin, adrenaline and the pigment melanin are formed from
- (1) Tryptophan
  - (2) Glycine
  - (3) Tyrosine
  - (4) Proline
60. In most of the mammals the testes are extra-abdominal in scrotal sacs, because
- (1) No sperm will be produced if testes are abdominal
  - (2) In the scrotum the temperature is slightly lower which help in sperm formation
  - (3) There is little space in the abdominal cavity for the testis.
  - (4) Of all the above three
61. Cryptochidism is a condition in which testes are
- (1) Unable to descend into scrotal sacs
  - (2) Unable to produce sperms
  - (3) Surgically removed
  - (4) Not developed in foetus
62. Allantois of the mammalian embryo helps in
- (1) Respiration
  - (2) Excretion
  - (3) Protection
  - (4) Nutrition
63. In the development of chick which structures are formed from splanchnopleure?
- (1) Vertebral column and spinal cord
  - (2) Muscles and connective tissue of digestive tube
  - (3) Brain and its coverings
  - (4) Urinogenital organs
64. To accomplish fertilization sperm acrosome needs to produce two enzymes, one of them is Lysin, which is the other one?
- (1) Hyaluronidase
  - (2) Protease
  - (3) Kinase-kinase
  - (4) None of these

65. Growth due to the increase in size is called
- (1) Multiplicative growth
  - (2) Auxentic growth
  - (3) Accretionary growth
  - (4) All above
66. Which of the following is the environmental theory of aging?
- (1) Metabolic rate affects the aging
  - (2) Environmental and hereditary factors control the aging
  - (3) The radiation affects the gene mutation resulting in the DNA transcription in somatic cells
  - (4) The rate of aging and age is controlled by the aging gene
67. Which is a fungal disease of poultry?
- (1) Thrush
  - (2) Pox
  - (3) Cholera
  - (4) Ranikhet
68. Coccidiosis in poultry is caused by
- (1) Virus
  - (2) Protozoan parasite
  - (3) Nematode parasite
  - (4) Tapeworm
69. Lactation in sterile cows is induced by
- (1) Vitamin B12
  - (2) Gonadotropin
  - (3) Stilbesterol
  - (4) Vitamin K
70. The meat of buffalo is known as
- (1) Beef
  - (2) Mutton
  - (3) Pork
  - (4) White meat
71. The antibiotics obtained from *Streptomyces* are
- (1) Chloramphenicol, Erythromycin
  - (2) Leucomycin, Neomycin
  - (3) Novobiocin, Spiramycin
  - (4) All of these
72. Agar is used as a medium for bacterial culture. Agar is obtained from
- (1) Bones of dead animals
  - (2) Seaweed
  - (3) Starch
  - (4) Mango

73. Microbes are used in the industrial manufacture of
- (1) Beer and wines
  - (2) Industrial alcohol
  - (3) Butter and cheese
  - (4) All of these
74. When yeast ferments glucose the products are
- (1) Ethanol and water
  - (2) Methanol and carbon dioxide
  - (3) Ethanol and carbon dioxide
  - (4) Water and carbon dioxide
75. *Enrovirus* belonging to family Picornaviridae is the causative agent of an acute infectious disease in birds called
- (1) Avian encephalomyelitis
  - (2) Avian pasteurellosis
  - (3) Avian tuberculosis
  - (4) Avian influenza
76. Bacillary haemoglobinuria, an acute infectious disease of cattle is known as
- (1) Wool sorters disease
  - (2) Red water disease
  - (3) Sarcoma
  - (4) Epidemic tremor
77. Carbon monoxide is toxic to vertebrates because it
- (1) saturates the plasma
  - (2) forms a stable compound with haemoglobin
  - (3) prevent passage of red corpuscles through the capillaries
  - (4) cannot diffuse out of the lungs
78. Which of the procedures be adopted to minimize pollution caused through agriculture inputs?
- (1) Total ban on the use of compounds with long residual effect
  - (2) Creation of barriers to prevent flow of chemicals in water bodies
  - (3) Plant protection by biological control, wherever possible
  - (4) All of these
79. Who developed methods of inoculating against causative organisms of anthrax, rabbies etc., and was thus responsible for saving many lives
- (1) William Harvey
  - (2) Karl Landsteiner
  - (3) Louis Pasteur
  - (4) Konard Bloch

80. Those bacteria designated microaerophilic are distinguished by their ability to grow
- (1) in high concentrations of salt
  - (2) in low concentrations of oxygen
  - (3) without ATP or glucose
  - (4) only in the presence of viruses
81. All the following characteristics can be found in fungi except
- (1) they lack chlorophyll
  - (2) they have a heterotrophic mode of nutrition
  - (3) they are generally motile
  - (4) they are unicellular or multicellular
82. Pigs or dogs are the source of human infection by each of the following parasites except?
- (1) *Echinococcus granulosus*
  - (2) *Taenia solium*
  - (3) *Ascaris lumbricoides*
  - (4) *Trichinella spiralis*
83. Those infections that come on rapidly and are accompanied by severe symptoms are described as
- (1) chronic
  - (2) opportunistic
  - (3) acute
  - (4) asymptomatic
84. Anthrax spores are extremely resistant to environmental changes and therefore may be used in
- (1) biological warfare
  - (2) viral research
  - (3) biochemical mutations
  - (4) industrial processes
85. The dark-field microscope differs from the bright-field microscope because the dark-field microscope contains a special
- (1) ocular
  - (2) fine adjustment
  - (3) condenser
  - (4) objective lens.
86. Chlorhexidine and hexachlorophene share the characteristic of being
- (1) most useful against viruses
  - (2) phenol derivatives
  - (3) sterilizing agents
  - (4) antibiotics

87. Acetyl CoA enters the citric acid cycle by combining with
- (1) Ketoglutaric acid
  - (2) Succinic acid
  - (3) Citric acid
  - (4) Oxaloacetic acid
88. In the first step of acetoacetic formation, two molecules of acetyl-CoA condense to form acetoacetyl-CoA. This reaction is catalysed by
- (1) Thiolase
  - (2) Beta-hydroxymethylgluturyl CoA synthetase
  - (3) Betahydroxybutyric acid dehydrogenase
  - (4) Acetone decarboxylase
89. A calorie is the amount of energy required to
- (1) Change one liter of water to one kilogram of ice
  - (2) Change one liter of water to steam
  - (3) Raise a liter of water through one degree centigrade
  - (4) Oxidize one liter of water completely
90. In carbohydrate metabolism in cells, production of carbon dioxide
- (1) Results from the breakdown of ATP
  - (2) Takes place in the citric acid cycle
  - (3) Occurs each time a molecule of ATP is made
  - (4) Takes place each time a dehydrogenation occurs
91. The cloning experiments on sheep, frogs, and rice showed that
- (1) nuclei of adult cells are totipotent
  - (2) nuclei of embryonic cells can be totipotent
  - (3) nuclei of differentiated cells have different genes than zygote nuclei have
  - (4) differentiation is fully reversible in all cells of a frog
92. Which of the following statements is correct?
- (1) Only mitosis occurs in the gonads to produce gametes
  - (2) Only meiosis occurs in the gonads to produce gametes
  - (3) Both mitosis as well meiosis occurs in the gonads to produce the gametes
  - (4) Schizogony occurs in the gonads to produce gametes

93. During mitotic cell division, the centromere splits at the stage of  
(1) Prophase (2) Anaphase  
(3) Telophase (4) Metaphase
94. When a hybrid black pig is crossed with a white pig, the offsprings are :  
(1) Black (2) White  
(3) Some black and some white (4) Grey
95. Colour vision is sex-linked character and its gene is present in:  
(1) Homologous part of Y-Chromosome (2) Non-homologous part of Y-Chromosome  
(3) X chromosome (4) Both X and Y chromosomes
96. The names of the nucleic acids – ribonucleic acid and deoxyribonucleic acid are related to the :  
(1) Purines present in each (2) Base composition of each  
(3) Pyrimidines present in each (4) Sugars present in each
97. Occurrence of four horns instead of two in goat is an example of  
(1) Continuous variation (2) Discontinuous variation  
(3) Inheritance variation (4) Acquired variation
98. Gene frequencies in a population will remain constant only if  
(1) The population is large and mating is nonrandom  
(2) Mating is random and mutations do not occur  
(3) The population is small and mutations do occur  
(4) The population is large and the mutation-rate is constant
99. *Bovine trichomoniasis*, a protozoan venereal disease of cattle is characterized by  
(1) Early abortion usually between the second and fourth month of pregnancy  
(2) Fever, diarrhoea and buccal erosions  
(3) Signs of abdominal pain, frothing from mouth and diarrhoea  
(4) Inflammation of udder and discolouration of milk
100. Maximum milk in India is given by a buffalo breed known as  
(1) Mehsana (2) Nili Ravi  
(3) Murrah (4) Surti

## Space For Rough Work

SEAL