DF-3008
Second Year B. Sc. (Sem. III) Examination
March / April - 2016
Zoology : Paper - V

Time : 2 Hours] [Total Marks : 50

(1) Fill up strictly the details of signs on your answer book.

Name of the Examination : SECOND YEAR B. Sc. (SEM. 3)
Name of the Subject : ZOOLOGY : PAPER - 5

There are 50 questions. Each question carries (1) mark.

(2) प्रश्नमां कुल ५० प्रश्न है, दूसरे प्रश्न (१) अंक युक्त है।

Read the question carefully before selecting the correct option.

OMR Sheet करवा अंगैनी अर्थात् सुझावो आपेक्ष OMR Sheet-की पाकिंग अभाव है।

Important instructions to fillup O.M.R. Sheet is given on back side of the provided O.M.R. Sheet.
1. In depolarised condition potential are
   (A) + 30 mv
   (B) + 70 mv
   (C) − 30 mv
   (D) +10 mv

2. Mitochondria in cardiac muscle are -
   (A) Less than other muscle
   (B) Same as in others
   (C) None
   (D) More than other muscle

3. Junction of two neurons is called
   (A) Synapse
   (B) Junction
   (C) Synapse and Synapsis
   (D) Synapse

4. Filtration pressure in human kidney is about
   (A) 70 mmHg
   (B) 80 mmHg
   (C) 50 mmHg
   (D) 35 mmHg

DF-3008_D | 2 | [ Contd... ]
5. Urea of urine is produced by the breakdown of
   (A) glucose
   (B) sodium chloride
   (C) uric acid
   (D) amino acid

6. ADH influence final concentration of urine. It is secreted by
   (A) Thymus
   (B) Thyroid
   (C) Pituitary
   (D) Kidney

7. Lactic acid is formed in muscle during ....
   (A) aerobic respiration
   (B) Both
   (C) None
   (D) anaerobic respiration
8. Autorhythmicity is a special property of muscles of
(A) Liver
(B) Kidney
(C) Intestine
(D) Heart

9. The reabsorption of water in the kidney is under control of a hormone
(A) ACTH
(B) LH
(C) ADH
(D) STH

10. Excretion is mainly responsible for the removal of
(A) Carbon dioxide
(B) Nitrogenous waste
(C) None
(D) Excess of water
11 Haemoglobin as blood pigment is found in
(A) Invertebrates
(B) Earthworm
(C) All
(D) Vertebrates

12 Plasma of blood is -
(A) Non-living
(B) Partly living
(C) None
(D) Living

13 Exchange of gases in tissue takes place by
(A) Passive transport
(B) Diffusion
(C) Osmosis
(D) Active transport

14 CO₂ in air during inspiration
(A) 0.3%
(B) 0.03%
(C) 0.003%
(D) 3%
15. In which form the CO₂ is carried in the blood?
   (A) Sodium bicarbonate
   (B) Potassium bicarbonate
   (C) Sodium carbonate and Potassium bicarbonate
   (D) Sodium carbonate

16. The sense of equilibrium by ear is the function of -
   (A) Crista of ampulla
   (B) Membrane of cochlea
   (C) None
   (D) Organ of corti

17. Focal length of eye lens is controlled by
   (A) Pupil
   (B) Cornea
   (C) Ciliary body
   (D) Iris
18. Pneumotaxis and Inhibitory centers are associated with
(A) respiration
(B) movement
(C) none
(D) breathing

19. If blood cells from blood are removed, the liquid left is
(A) Plasma
(B) Water
(C) Lymph
(D) Serum

20. Oxygen is transferred to every cell of the body through
(A) W.B.C.
(B) Both
(C) None
(D) R.B.C.
21. The respiratory quotient is one in
(A) Fats
(B) Normal diet
(C) Proteins
(D) Carbohydrates

22. Smallest functional unit of kidney is
(A) Nephron
(B) Collecting tubule
(C) Glomerulus
(D) Bowmann’s capsule

23. T-system is present in between myofibrils over
(A) I-band
(B) Z-line
(C) H-zone
(D) A-band
24. The equation for respiration is:
   (A) $\frac{O_2 \text{ utilized}}{CO_2 \text{ produced}}$
   (B) $\frac{CO_2 \text{ produced}}{O_2 \text{ utilized}}$
   (C) None
   (D) $\frac{CO_2 \text{ utilized}}{O_2 \text{ produced}}$

R.Q. is:
   (A) $\frac{O_2 \text{ utilized}}{CO_2 \text{ produced}}$
   (B) $\frac{CO_2 \text{ produced}}{O_2 \text{ utilized}}$
   (C) None
   (D) $\frac{CO_2 \text{ utilized}}{O_2 \text{ produced}}$

25. RBCs are formed in:
   (A) Heart
   (B) Bone marrow
   (C) Spleen
   (D) Liver

26. An AB blood group person can donate blood to:
   (A) A, B and O
   (B) Only AB
   (C) All
   (D) A and B
27. If Rh+ individual Rh- child is born, what will happen?
(A) First birth is fatal, second is safe
(B) First and second both are fatal
(C) First and second both are safe
(D) First birth is safe, second may be fatal

28. Smallest WBC is ________.
(A) Neutrophils
(B) Lymphocytes
(C) Basophils
(D) Monocytes

29. BMR is controlled by ________.
(A) Pancreas
(B) Liver
(C) All
(D) Thyroid

30. In adult blood, RBCs are ________.
(A) Sodium
(B) Potassium
(C) Calcium
(D) Phosphate

The process in which chloride ions pass into RBC and bicarbonate ions pass out is called
(A) Chloride shift
(B) Enzymatic shift
(C) Buffer system
(D) Bicarbonate shift
31 Which of the following influences the activity of kidney?
(A) Vasopressin
(B) Adrenalin
(C) Vasopressin and Adrenalin
(D) STH

32 Absorption of Na\(^+\) and K\(^+\) ions occurs in
(A) Distal convoluted tubule
(B) Loop of Henle
(C) Proximal convoluted tubule
(D) Bowmann’s capsule

33 Plasma contains -
(A) 30% water
(B) 60% water
(C) 90% water
(D) 10% water
34. RBC's haemoglobin antigen ________ in the body is.
   (A) RBC cell membrane
   (B) Plasma
   (C) Nucleus
   (D) RBC membrane

Antigen related with blood groups are found
   (A) Nucleus of RBC
   (B) Blood plasma
   (C) All
   (D) On surface of RBC

35. The muscles of the heart ________ is.
   (A) ATP
   (B) creatine phosphate
   (C) ADP
   (D) ADP

Source of energy for contraction of muscle is
   (A) Arginine phosphate
   (B) ATP
   (C) glucog-6-phosphate
   (D) Creatine phosphate

36. Which is necessary for muscle contraction?
Out of the following which is necessary for muscle contraction?
   (A) Ca$^{2+}$ and Mg$^{2+}$
   (B) Na$^{+}$ and Ca$^{2+}$
   (C) K$^{+}$ and Mg$^{2+}$
   (D) Na$^{+}$ and Mg$^{2+}$

37. Widely accepted theory of muscle contraction is
   (A) Sliding filament theory
   (B) gliding theory
   (C) None
   (D) Surface tension theory
38  रक्तकृतिकारण निर्माणातील विधाने ________ कसे घेते?
(A) हिमोपोईजिस
(B) ल्यूकोपोईजिस
(C) हिमोपोईजिस आणि ल्यूकोपोईजिस
(D) हिमोलाजिस

Blood corpuscles formation is called as
(A) Haemopoiesis
(B) Leucopoiesis
(C) Haemopoiesis and Leucopoiesis
(D) Hemolysis

39  WBC-नाचे संचय __________ माना घात घेते.
(A) अशील
(B) पृष्ठ
(C) एक पदा नवी
(D) अश्लभाच

WBCs are stored in
(A) Spleen
(B) Liver
(C) None
(D) bone marrow

40  __________ माने सारकोलेम्माने अभाव होते.
(A) सर्व स्नायुतंत्र
(B) कृषी स्नायुतंत्र
(C) अशील
(D) हडप स्नायुतंत्र

Sarcolemma is absent in
(A) Smooth muscle fibres
(B) Skeletal muscle fibre
(C) All
(D) Cardiac muscles fibres
41. Fibers are branched and forms cross connection in
   (A) Smooth muscle
   (B) Cardiac muscle
   (C) None
   (D) Skeletal muscle

42. Neurons of retina are -
   (A) Bipolar
   (B) Mult polar
   (C) None
   (D) Unipolar

43. The kidneys of man are -
   (A) Mesonephros
   (B) Metanephros
   (C) Pronephros
   (D) Opisthene nephros
44. What is the function of the kidney? (A) Blood-pressure (B) Renal capsule (C) Nephron (D) Glomerulus
Ultrafiltration takes place in ...
(A) Bowman's capsule (B) Collecting tubule (C) All (D) Glomerulus

45. Which of the following enzymes help in the production of urea?
(A) Urease (B) Arginase (C) None (D) Uricase

46. Which is the normal concentration of sodium in the blood? (A) 60 milli/electron (B) 20 milli/electron (C) 130 milli/electron (D) 40 milli/electron

In myelinated nerve speed of nerve impulse is maximum. It is nearly ....
(A) 80 m/sec. (B) 20 m/sec. (C) 130 m/sec. (D) 40 m/sec.
47 Acetylcholine is
   (A) Vitamins
   (B) Enzyme
   (C) Chemical transmitter
   (D) Toxin

48 Ear ossicles from innerside of middle ear are -
   (A) Incus, Malleus and Stapes
   (B) Malleus, Stapes and Incus
   (C) None
   (D) Malleus, Incus and Stapes

49 Rhodopsin is related with -
   (A) Cones cell
   (B) Both
   (C) None
   (D) Rod cell

50 Nerve impulse is conducted by
   (A) Electro chemical changes
   (B) Mechanical changes
   (C) All
   (D) Physical changes