

2018

BIO-ZOOLOGY

(Theory)

Full Marks : 35

Time : 1½ hours

General Instructions :

- (i) Write all the answers in the Answer Script.
- (ii) Attempt all parts of a Group serially in one place.
- (iii) All questions are compulsory.
- (iv) The figures in the margin indicate full marks for the questions.
- (v) This question paper consists of 5 (five) Groups — A, B, C, D, and E.

Group— A: Consists of three questions (multiple-choice type) of 1 mark each.

Group— B: Consists of three questions (very-short-answer type) of 1 mark each to be answered in 1 word or 1 sentence each.

Group— C: Consists of four questions (short-answer type) of 2 marks each with one alternative from the same group to be answered in 20-30 words each.

Group— D: Consists of three questions (long-answer type) of 3 marks each with one alternative to be answered in 50-70 words.

Group— E: Consists of three question (very long-answer type) of 4 marks each with one alternative to be answered in 70-80 words.

GROUP – A

Choose and write the correct answer for the following: 1 × 3 = 3

1. Which phylum is characterised by the presence of a pseudocoelom.
 - (a) Platyhelminthes
 - (b) Aschelminthes
 - (c) Annelida
 - (d) Arthropoda

2. Enzyme promote chemical reaction by
 - (a) Reducing activation energy
 - (b) Causing release of heat which acts as a primer

(3)

- (c) Increasing molecular motion
(d) Changing free energy difference between substrate and product.

3. Tendon helps to join

- (a) Muscle to bone
(b) Muscle to muscle
(c) Bone to bone
(d) Muscle to join

GROUP — B $1 \times 3 = 3$

4. Give the scientific name of Prawn. 1

5. What is the function of setae in earthworm? 1

6. Write down the chemical equation involved in aerobic respiration. 1

GROUP — C $2 \times 4 = 8$

7. Name the phylum to which the following animals belong: $1 + 1 = 2$

- (a) Scorpion
(b) Starfish

(4)

8. What is the term given to organisms that possess both the male and female sex organs in the same body? Name one animal which shows this character. $1 + 1 = 2$

9. What are polysaccharides? Give two examples of polysaccharides. $1 + 1 = 2$

10. Give a well labelled diagram of the digestive system of cockroach. 2

Or

Name any 2 pairs of salivary glands found in human. 2

GROUP — D $3 \times 3 = 9$

11. Give the differences between frog and toad. 3

Or

Give at least three important characters of the phylum Porifera. 3

12. Describe Watson and Crick model of DNA. 3

13. What is a nephron? Draw a well labelled diagram of a nephron. $1 + 2 = 3$

(5)

GROUP – E

$4 \times 3 = 12$

- 14.** Name the three types of muscles. Where are they found in a human body? What is a sarcomere?

$1 + 2 + 1 = 4$

- 15.** What is a synapse? How does the transmission of a nerve impulse takes place across the synapse? $1 + 3 = 4$

Or

Give the differences between blood and lymph. Add a note on the functions of blood.

$2 + 2 = 4$

- 16.** Where is a thyroid gland located? What hormones does it secrete? Name any two disorders in human body which are associated with this gland.

$1 + 1 + 2 = 4$

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