

PART – B
ZOOLOGY

(Maximum : 30 Scores)

Time : 1 Hour

(3 × 1 = 3)

I. Answer any 3 questions from 1 to 5. Each carries 1 score.

1. The system of providing scientific name with two components is called _____.

2. Water vascular system is present in _____.

(a) Leech

(b) Neries

(c) Prawn

(d) Starfish

3. Name the nucleotide form of guanine.

4. The functional unit of a muscle contraction is called _____.

5. Erythro poietin, a peptide hormone produced by _____.

II. Answer any 9 questions from 6 to 16. Each carries 2 scores.

(9 × 2 = 18)

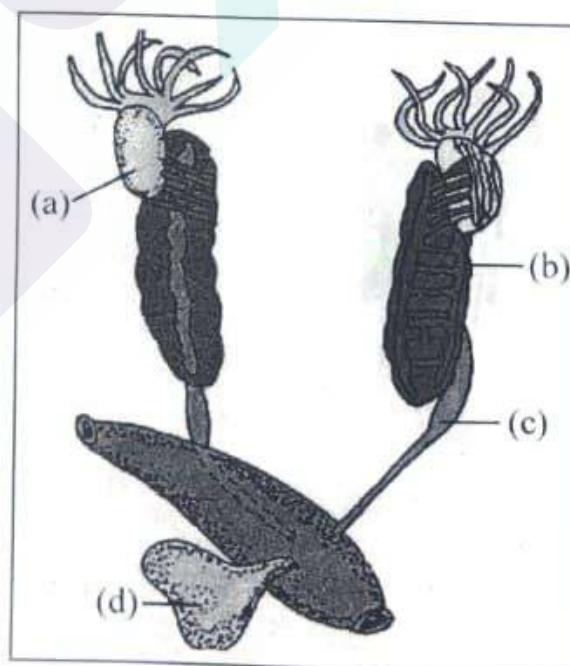
6. Classify the following into polypeptides and polysaccharides :

(Trypsin, Inulin, Insulin, Chitin)

7. Observe the diagram of male reproductive system of Frog.

Label a, b, c, d

(½ × 4)



8. Give reason :

(a) AB blood group individuals are called universal recipients.

1

(b) SAN is called pacemaker of heart.

1

9. When substrate concentration increases, the velocity of enzymatic reaction rises at first. After attaining maximum velocity, it is not exceeded by any further rise in concentration of the substrate. Why ?

10. Distinguish between :

(a) Systole and Diastole

1

(b) Plasma and Serum

1

11. Indicate whether the following statements are true or false :

(a) Reptiles are ammonotelic animals.

(b) Lungs and liver also help in the elimination of excretory wastes.

(c) Inflammation of glomeruli of kidney is called renal calculi.

(d) Malpighian Tubules are the excretory structures of most of the insects including cockroaches.

($\frac{1}{2} \times 4$)

12. Henle's loop plays an important role in concentrating the urine. How ?

13. Name the joint :

(a) The joint between adjacent vertebrae

(b) Joint between skull bones

(c) Joint between atlas and axis

(d) Joint between carpal and metacarpal of thumb

($\frac{1}{2} \times 4$)

14. Which hormonal deficiency is responsible for the following ?

- | | |
|------------------------|---------------|
| (a) Diabetes insipidus | (b) Cretinism |
| (c) Diabetes mellitus | (d) Dwarfism |

($\frac{1}{2} \times 4$)

15. Give one word :

- (a) Warm blooded animals
- (b) The body surface is distinctly marked out into segments
- (c) The property of a living organism to emit light
- (d) Sexes are not separate

($\frac{1}{2} \times 4$)

16. Match the following :

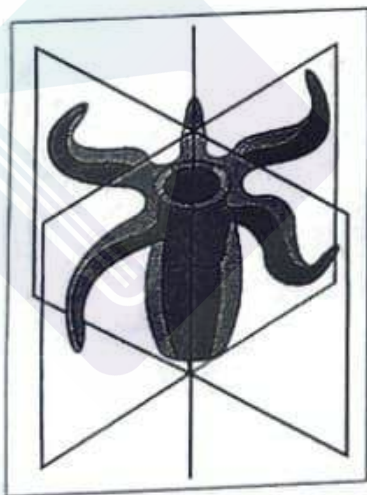
- | | |
|---------------|----------|
| (a) Radula | - Sycon |
| (b) Pinnae | - Hydra |
| (c) Osculum | - Equus |
| (d) Hypostome | - Loligo |

($\frac{1}{2} \times 4$)

III. Answer any 3 questions from 17 to 20. Each carries 3 scores.

($3 \times 3 = 9$)

17. Observe the diagram. Answer the following :



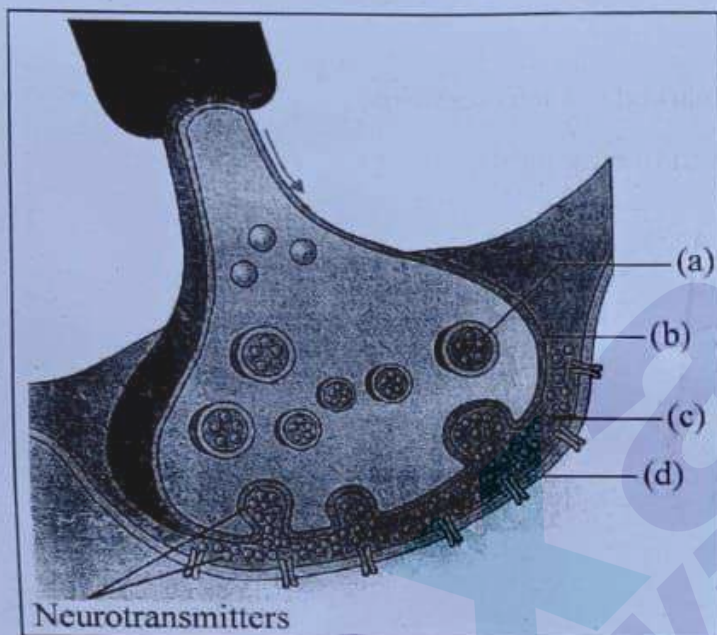
- (a) Identify the symmetry.
- (b) State any two phylum in which this condition can be seen.

1

2

18. "The functioning of the kidneys is effectively monitored and regulated by hormonal feedback mechanism involving the hypothalamus, JGA and to a certain extent heart." Explain the role of JGA in the regulation of kidney function.

19. Observe the diagram. Answer the question.



Label

(a)

(b)

(c)

(d)

(e) Name different types of synapses.

($\frac{1}{2} \times 4$)

(1)

20. Define :

(a) Tidal volume

(1)

(b) Residual volume

(1)

(c) Vital capacity

(1)