

Q.P. Code – 50725

**Second Year B.Sc. Degree Examination, OCTOBER/NOVEMBER 2016
(Directorate of Distance Education)**

Zoology

**(DSB 310) Paper II – HISTOLOGY, COMPARATIVE ANATOMY,
BIOCHEMISTRY, BIO-TECHNOLOGY AND PHYSIOLOGY**

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) *Students who have attended 25 marks I-A Scheme will have to answer for total of 75 marks.*
- 2) *Students who have attended 15 marks I-A Scheme will have to answer for total of 85 marks.*
- 3) *One mark questions should be answered in first two pages of the answer book.*
- 4) *Draw neat labelled diagrams wherever necessary.*
- 5) *Question No. V is **compulsory** for 85-marks scheme.*

I. Simple Answer Questions :

10 × 1 = 10

Answer in a word or a phrase or a sentence :

1. Define enzyme.
2. Name the deficiency disease of Vitamin C.
3. What are Osmoconformers?
4. Give an example for polysaccharide.
5. What is an exocrine gland?
6. Define osmoregulation.
7. Name two uricotelic animals.
8. Define respiratory quotient.
9. Name any two neurotransmitters.
10. What are 'vectors'?

II. Short Answer Questions :

5 × 3 = 15

Answer any **FIVE** of the following :

11. List the functions of Vitamin D.
12. Draw a neat labelled diagram of multipolar neuron.

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13. Explain 'Chloride shift'.
14. Explain synaptic transmission.
15. Explain the effects of 'Hypothyroidism'.
16. Write short note on plasmids.
17. What are restriction enzymes? Give two examples.

III. Medium Answer Questions :

5 × 6 = 30

Answer any **FIVE** of the following :

18. Describe the histology of Ovary.
19. Describe the adaptive changes of animals in cold environment.
20. Explain Bohr's effect.
21. Mention the hormones secreted by adenohipophysis with one function for each.
22. Explain sliding filament theory.
23. Write the properties of enzymes.
24. Give an account of transgenic animals.

IV. Long Answer Questions :

2 × 10 = 20

Answer any **TWO** of the following :

25. Describe the osmoregulation in Terrestrial animals.
26. Trace the evolutionary trends in structure of aortic arches upto mammals.
27. Describe the physiology of urine formation.
28. Describe the histology of T.S. of Intestine with labelled diagram.

V. Compulsory Question for 85 marks scheme only :

1 × 10 = 10

Answer any **ONE** of the following :

29. Describe the origin and conduction of nerve impulse.
30. Write a note on :
 - (a) Respiratory Pigments
 - (b) O₂ transport