

Q.P. Code – 50725

Second Year B.Sc. Degree Examination

OCTOBER/NOVEMBER 2014

(Directorate of Distance Education)

Zoology

**(DSB 310) Paper II – HISTOLOGY, COMPARATIVE ANATOMY,
BIOCHEMISTRY, BIOTECHNOLOGY 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) *All questions are **compulsory**.*
- 3) *Answer 1 mark questions in the first two pages of the main answer book.*
- 4) *Draw diagrams wherever necessary.*
- 5) *Question No. V is **compulsory** for 85 marks scheme.*

I. Simple Answer Questions :

Answer in a word or a phrase or a sentence :

10 × 1 = 10

1. Define enzymes.
2. Expand FSH.
3. Define neurogenic heart.
4. Which cells of the stomach produce HCl?
5. Name structural and functional unit of kidney.
6. What are cosmids?
7. How is Beri Beri caused?
8. Define polysaccharide.
9. Where do you find Kupffer's cells?
10. Name two respiratory pigments.

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II. Short Answer Questions :

Answer any **FIVE** of the following :

5 × 3 = 15

11. Draw labelled diagram of pancreas.
12. Write the biological importance of lipids.
13. Classify protein with examples.
14. Write short note on plasmids.
15. Write short note on vitamin 'D'.
16. Give a brief account of composition of blood.
17. What are restriction enzymes? Give two examples.

III. Medium Answer Questions :

Answer any **FIVE** of the following :

5 × 6 = 30

18. Explain the functions of adrenal gland.
19. Describe the histology of T.S of liver.
20. Compare the heart of frog with that of mammal.
21. Explain the structure of skeletal muscle.
22. Classify proteins with suitable examples.
23. Name the hormones secreted by anterior pituitary with one function each.
24. Give an account on transgenic animals.

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IV. Long Answer Questions :

Answer any **TWO** of the following :

2 × 10 = 20

25. Describe the histology of T.S of stomach with labelled diagram.
26. Trace the evolutionary trends in the structure of heart in vertebrate series.
27. Give an illustrated account of TCA cycle.
28. Describe the origin and conduction of nerve impulses.

V. **Compulsory** questions for **85** marks scheme only :

Answer any **ONE** of the following :

1 × 10 = 10

29. Explain the techniques of DNA finger printing. Add a note on its applications.
30. Explain osmoregulation in fresh water and marine animals.
