

Second Year B.Sc. Degree Examination
Aug/Sept 2009
(Distance Education)
(Freshers Scheme)

ZOOLOGY

**Paper-II : Histology, Comparative Anatomy, Biochemistry,
Biotechnology and Physiology**

Time : 3 Hours

Max. Marks : 85

Note : 1) All questions are compulsory.

2) Answer one mark questions in the first two pages of the main answer book.

3) Draw diagrams wherever necessary.

I. Simple questions:

12x1=12

Answer in a word, phrase or sentence:

1. What are transgenic animals?
2. Name any two muscle proteins.
3. What are graafian follicles?
4. Name the bones present in the fore limb of frog.
5. What is a peptide bond?
6. Name any two fat soluble vitamins.
7. What is southern blotting?
8. Expand A.D.H.
9. Define cretinism.
10. What are kupffer cells?
11. What is Rickets?
12. What is Bohr effect?

II. Short answer questions:

6x3=18

Answer any SIX of the following:

13. Name any three applications of DNA finger printing technique.
14. List the steps involved in glycogenolysis.
15. Explain the deficiency disease of Vit-A.

16. Draw a neat labelled diagram of a Neuron.
17. What is bioluminescence? Give two examples.
18. Name the Granulocytes and mention their functions.
19. Name the bones of the hind limbs of Amphibians.
20. Write a note on deleterious effects of tobacco smoking.

III. Medium answer questions:

7x5=35

Answer any SEVEN of the following:

21. Explain the mechanism of contractor of striated muscle.
22. Explain the different types of muscular tissue.
23. Describe the method of inserting desired DNA into a vector.
24. List the general properties of the enzymes.
25. Explain the histology of mammalian ovary.
26. Describe the osmoregulatory mechanism in Aquatic animals.
27. Classify the carbohydrates giving suitable examples. Add a note on its biological importance.
28. List the general functions of blood.
29. Explain the structure of Mammalian skin.

IV. Long answer questions.

2x10=20

Answer any TWO of the following:

30. What is thermoregulation? Explain the mechanism of thermoregulation in animals.
31. What is an endocrine gland? Describe the functions of thyroid gland. Add a note on hyper and hypothyroidism.
32. Explain the evolutionary trends in the vertebrate kidney.
33. Explain the southern blotting technique. Add a note on its applications.

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