

MAY 2012

P/ID 40318/PZLM

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

Define / Explain the following:

1. Scientific research.
2. Sampling procedure.
3. Primary data
4. Bibliography
5. Scientific journal
6. Animal model
7. p^H
8. Beer's law
9. Micrometry
10. Manuscript

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) What should be the objectives of research?
Or
(b) Present 'Research process' in a flow chart.
12. (a) What are the techniques involved in defining a research problem?
Or
(b) Explain the important concepts relating to research design.
13. (a) How are text books different from review monographs?
Or
(b) Write an account on maintenance of animal models.
14. (a) Describe the principle behind phase contrast microscope.
Or
(b) Give an account of TLC and its applications.

15. (a) What is meant by photomicrography? Enlist its uses.

Or

- (b) How would you estimate the density of soil fauna?

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Analyse critically the criteria for a good research programme.

Or

- (b) Enumerate the problems encountered by researchers in India.

17. (a) Discuss the basic principles of experimental design.

Or

- (b) Explain the applications of internet in literature collection.

18. (a) Comment on the significance of oxygen for living forms. Briefly explain O₂ electrodes.

Or

- (b) Elaborate on spectrophotometry.

19. (a) Write an essay on Enzyme Kinetics.

Or

(b) Differentiate Histology from Histochemical methods.

20. (a) How is population estimation of terrestrial fauna carried out?

Or

(b) Write an elaborate note on data presentation in a thesis.
