MAY 2014 **P/ID 40318/PZLM**

Time : Three hours Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Define/Comment on the following.

1. Null hypothesis
2. News letter
3. CPCSEA
4. Calomel electrode
5. Ion exchanger
6. V_{max}
7. Ocular micrometry
8. Quadrate method
9. Date base
10. Index card

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

11. (a) Analyse the concepts of scientific research.

Or

(b) Examine the purpose and types of Bibliography.

12. (a) Briefly present the internet facilities and its uses in literature collection.

Or

(b) Write short notes on review monographs.

13. (a) Write an account on

(i) Maintenance of animal model

(ii) CPCSEA Act

Or

(b) Comment on the different sources of literature.

14. (a) How will you measure pH of the given solution using pH meter?

Or

(b) Evaluate the working principle and components of light microscope.

15. (a) Explain gel filtration and its applications.

Or

(b) How is molecular weight of a protein assessed by gel filtration technique?

PART C — ($5 \times 10 = 50$ marks)

Answer ALL questions.

All questions carry equal marks.

16. (a) Derive Michalis Menton equilibrium of enzyme kinetics. Add a note on its applications.

Or

(b) Derive line weaver plot of enzyme reaction. Comment on its application.

17. (a) Describe the histochemical method of detection of lipid.

Or

(b) Elucidate the experimental procedure used for histo chemical localization of carbohydrate.

18. (a) How will you estimate the absolute density of population using quadrate method?

Or

(b) Explain the method of population density of soil ecosystem.

19. (a) Evaluate the components of 'Thesis'.

Or

(b) Differentiate primary secondary and tertiary sources of literature collection. Give example for each source.

20. (a) Describe the components and construction of spectro photometer and comment on its applications.

Or

(b) Evaluate the principle technique and applications of thin layer chromatography.

———————