

18. (a) Explain the method of taking photos from microscopic slides.

Or

- (b) Explain the structure and functioning of Scanning Electron Microscope.

19. (a) Explain the formula and steps for calculation of standard deviation from ungrouped data.

Or

- (b) When will you apply the rank correlation? Explain the formula for spearmanrank correlation.

20. (a) What is the importance of Materials and methods in a thesis?

Or

- (b) What is the significance of the 'Discussion and conclusion' in research publication?

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M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2010.

Third Semester

Botany

RESEARCH METHODOLOGY

(For those who joined in July 2008 and afterwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

1. Bovin serum.
2. Paper chromatography.
3. Centrifugal force.
4. Autoradiography.
5. Paraffin wax.
6. Ultra microtome.

7. Class interval.
8. Test of significance.
9. Figure.
10. Website.

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Describe the role of gas chromatography in the analysis of hydrocarbons.

Or

- (b) Mention any five stationary phases (adsorbents) and their specific applications in TLC.

12. (a) Mention any five stains and their application in electrophoresis.

Or

- (b) Write short notes on autoradiography.

13. (a) Describe briefly about the structure and application of camera lucida.

Or

- (b) Draw a simple labeled diagram to show the details of scanning electron microscope.

14. (a) What are the merits and demerits of standard deviation?

Or

- (b) Explain the two different formulae followed in Chi square test.

15. (a) What is the importance of Review of Literature?

Or

- (b) How will you cite the title of a book and thesis in your thesis?

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) What are the biological applications of UV-visible spectrophotometer?

Or

- (b) Give an account of the detectors used in chromatography.

17. (a) Explain the functioning and application of PCR.

Or

- (b) What is the role of electrophoresis in nucleic acid analysis?