

AA-3351 Seat No. _____
M. Phil. Examination
April / May – 2003
Botany
Paper - I : Research Methodology
(New Course)

Time : 3 Hours]

[Total Marks : 100

Instructions : (1) All questions are **compulsory**.
(2) All questions carry **equal** marks.
(3) Illustrate your answers with neat and labelled diagrams.

1 Compare a spectrophotometer with a colorimeter.

OR

1 Describe working, principle and uses of any spectrophotometer.

2 Write notes on :

- (a) Working of a cytophotometer
- (b) Microbial techniques.

OR

2 Compare SEM, TEM and Light microscope.

3 Discuss various types of chromatography as studied by you.

OR

3 Write notes on :

- (a) Gel electrophoresis
- (b) Measurement of radioactivity.

4 Write notes on :

- (a) Size, distribution and types of quadrats.
- (b) Organic carbon of soil - its determination.

OR

4 Describe the physical and chemical properties of water.

5 Write notes on :

- (a) Standard deviation and chi-square
- (b) Regression.

OR

5 Suggest the application of statistical methods in plant research.