



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

Second Semester B.Sc. Degree Examination, June 2015

First Degree Programme under CBCSS

Foundation Course - II: (for Botany)

AUBO221: Methodology and Perspectives in Plant Sciences

Time: 3 Hours

Max. Marks: 80

SECTION – A

Answer ALL questions in one or two sentences.

1. Theoretical knowledge
2. Carnoy's Formula
3. Scientific Tempers
4. Lyophilisation
5. Central tendency
6. Photometry
7. Sampling of data
8. Dispersion
9. Dehydration
10. Pseudoscience

(10 x 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, each in a short paragraph not exceeding 50 words.

11. Micrometry.
12. What is centrifugation ? Mention different types.
13. Criticize on science as a human activity.
14. Differentiate inductive and deductive reasoning.

P.T.O.

1081

15. Role of buffers in biological system.
16. Mention the principle of PH meters.
17. Short notes on stains.
18. Theories & laws in science.
19. Mounting medias.
20. Explain the basic principles of chromatography.
21. What is data ? Mention different types.
22. Test of significance.

(8 x 2 = 16 Marks)

SECTION – C

Short essay type : Answer any SIX questions.

23. Define hypothesis. Explain different types.
24. Differentiate colorimetry & spectrophotometry.
25. What is frequency distribution? Mention different types.
26. Explain various methods of data collection for statistical purpose.
27. Notes on methods of data presentation.
28. Define the term scientific methods & add a note on the steps involved in it.
29. Knowledge & information
30. Application of cryobiology.
31. Mention microscopy with special reference to the types of microscopes you studied.

(6 x 4 = 24 Marks)

SECTION – D

Long essay type : Answer any TWO questions.

32. Explain the different separation techniques used in biological research, with principle, procedures & significance.
33. Explain different types of sectioning procedures in biology.
34. Statistical methods are essential for modern biological research. Substantiate the statement with suitable examples & give a brief account of different statistical methods used in biology.
35. Explain the revaluation in science & its consequences.

(2 x 15 = 30 Marks)

[**]**