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Reg. No :

Name :

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024
2020, 2021, 2022 ADMISSIONS SUPPLEMENTARY
SEMESTER III - CORE COURSE BOTANY

BO3C09TM20 - Research Methodology, Microtechnique, Biostatistics and Biophysical Instrumentation

Time : 3 Hours

Maximum Weight : 30

Part A

I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

1. Explain the structure of a scientific library.
2. What is a review article?
3. What is carmine dye? Mention its source
4. Write an explanatory note on cryotome.
5. What are smears? What is its application?
6. Briefly explain the mounting media used for permanent preparations coming under synthetic resins.
7. Write notes on binomial distribution.
8. Write notes on principles of field experimentation.
9. Write a detailed note on ultracentrifuges.
10. Write short notes on ESR

Part B

II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

11. Explain patenting.
12. Explain the methods of presentation of research findings in a seminar.
13. Explain briefly the working of Rotary microtome.
14. Describe the Acetocarmine method used for smear preparation.
15. What are the characters of a normal distribution?
16. Write notes on Factorial design.
17. Explain the principle and applications of GCMS.
18. What is LCMS? Explain the working of LCMS.



Part C

III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

19. Write the general structure of a thesis.
20. Write an essay on importance of killing and fixation in microtechnique. Add a note on the types of fixation and fixative images.
21. Write notes on graphical and diagrammatic methods of data presentation.
22. Explain the biophysical instrumentation and working of column chromatography.