

TM243585X

Reg. No :

Name :

MASTER'S DEGREE (C.S.S) EXAMINATION, NOVEMBER 2024

2023 ADMISSIONS REGULAR

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 intellectual property rights.
2. Describe the preliminary pages of a thesis.
3. What is a microtome?
4. Differentiate infiltration and embedding.
5. What are adhesives? Write the composition and properties of Haupt's adhesive.
6. Write a short note on cleaning, labelling and storage of slides.
7. Explain mutually exclusive and independent events.
8. What are the different types of data?
9. Give an account on the principle and applications of fluorescence microscopy.
10. Write a detailed note on ultracentrifuges.

Part B

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

(6x2=12)

11. Write notes on copy right.
12. Explain the methods of presentation of research findings in a seminar.
13. Explain dealcoholization and clearing.
14. Write brief note on TBA/Hygrobutol whole mounting method.
15. Explain t-test and Chi square test.
16. What are the various measures of dispersion?
17. Briefly explain the technique ion exchange chromatography.
18. What is the principle of Pulse Field Gel Electrophoresis? Write its applications.

Part C

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

(2x5=10)

19. Describe the outline of a project proposal.
20. Explain in detail the steps involved in the permanent slide preparation.
21. Explain the common designs in biological experiments.
22. Write an essay on the principle, working and applications of a compound microscope.