



21000523

QP CODE: 21000523

Reg No :

Name :

M Sc DEGREE (CSS) EXAMINATION, MARCH 2021

Third Semester

Faculty of Science

M Sc BOTANY

**CORE - BY010301 - RESEARCH METHODOLOGY, MICRO-TECHNIQUE,
BIostatISTICS AND BIOPHYSICAL INSTRUMENTATION**

2019 Admission Onwards

68B02FF1

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What are reprints?
2. What is a 'title page' of a thesis
3. What is camera ready copy?
4. Differentiate between rotary and sledge microtomes
5. What are acidic stains, cite an example
6. Add a note on Canada Balsam
7. What are mutually exclusive events? Give one example.
8. How do we interpret the significance of the calculated value in t-test?
9. Write the principle of pH meter.
10. List out different types of chromatography.

(8×1=8 weightage)





Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Write notes on ethics in research.
12. How will you prepare a research article for a publication?
13. Distinguish between dehydrating agents which are (1) solvents and (2) non-solvents of paraffin
14. Differentiate between smear and squash
15. Describe the different methods used for the representation of data.
16. Citing a suitable example, explain the significance of the measures of dispersion.
17. Describe the principle and working of SDS PAGE.
18. Explain principle and applications of spectrophotometer

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write an essay on different types of journals with suitable examples. Comment on: (1) impact factor, h-index and (2) bibliographic databases
20. Write an essay on killing and fixing. Elaborately mention the properties and techniques, fixation images, composition and usages of common fixatives
21. "An appropriate design is required for the success of an experiment, and different designs are devised depending on the nature of study, number of variables, and the type of data to be collected." Explain.
22. Write an essay on different electron microscopes.

(2×5=10 weightage)

