

C 62591

(Pages : 2)

Name.....

Reg. No.....

SECOND SEMESTER (CUCBCSS-UG) DEGREE EXAMINATION
MAY 2019

B.Sc. Botany

BOT 2B 02—RESEARCH METHODOLOGY AND MICRO TECHNIQUE

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.

Each question carries .1 mark.

1. Define Ogives.
2. What is the formula for t-test ?
3. What is the importance of control in experiments ?
4. What is bibliography ?
5. Define p.p.m. ?
6. Expand LCD.
7. What is resolving power of a microscope?
8. Name a coaltar dye.
9. What is SEM ?
10. Define molarity of a solution.

(10 x 1 = 10 marks)

Section B

Answer all questions.

Each question carries 2 'narks.

11. Differentiate between dependent and independent variables.
12. What is the significance of standard error in sampling analysis ?
13. Explain Chi-square as a test of 'goodness of fit'.
14. What is the significance of buffers in biological studies ?
15. Explain smear preparation.
16. What is the function of a condenser in a microscope ?

Turn over

17. Distinguish between killing and fixing.
18. What is the principle of colorimetry ?
19. Explain double staining with an example.
20. How will you prepare whole mounts of specimens ?

(10 x 2 = 20 marks)

Section C

Answer any six questions.

Each question carries 5 marks.

21. Describe the steps involved in testing of hypothesis in scientific research.
22. Enumerate the different methods of collecting data.
23. Write briefly on the representation of data using computers.
24. Explain the various measures of central tendency.
25. What is ion exchange chromatography ? Explain its working.
26. How do you prepare illustrations using a camera lucida ?
27. Write notes on infiltration methods.
28. Describe the steps involved in micrometry. What do you mean by calibration ?

(6 x 5 = 30 marks)

Section D

Answer any two questions.

Each question carries 10 marks.

29. Explain the significance of a research report and narrate the various steps involved in writing a report.
30. Write notes on the principle, types and application of centrifuges.
31. Describe the different types of microscopes that you have studied. What are their uses ?

(2 x 10 = 20 marks)