Reg. No…….. Name…… **20U619**

B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER – 6: BOTANY (CORE COURSE)

COURSE: 15U6CRBOT10: PERSPECTIVES OF SCIENCE, METHODOLOGY AND GENERAL INFORMATICS

(Common for Regular 2017 Admission & Supplementary 2016 /2015 Admissions)

Time: Three Hours Max. Marks: 60

PART A

I. ***Answer ALL questions; each question carries 1 mark.***

1. What is meant by Standard Error?
2. What is the importance of replication in an experiment?
3. What is bar diagram?
4. What is whole mount?
5. Explain Mode
6. Define pH
7. What is the stationary phase in paper chromatography?
8. Give an example of vital stain (1 x 8 = 8)

PART B

II. Answer ANY SIX questions; each question carries 2 marks.

9. What is hypothesis? Give an example for null hypothesis.
10. What is a binomial distribution?
11. Define Beer-Lamberts Law
12. Explain Svedberg unit
13. What is double staining?
14. What is mordant. Give an example
15. What are the applications of SDS electrophoresis?
16. What is the role of discussion in a research article?
17. What are the applications of phase contrast microscope?
18. What is INFLIBNET? (2 x 6 = 12)

PART C

III. ***Answer ANY FOUR questions; each question carries 4 marks.***

19. What is a scientific paper? What is the significance of documentation and publishing in scientific research?

20. Explain ultracentrifugation
21. Explain the working and application of TEM
22. Explain the principle of staining and preparation of any two stains
23. Explain smear and squash preparations
24. Explain Chi square Test. (4 x 4 = 16)

PART D

IV. ***Answer ANY TWO questions; each question carries 12 marks.***

25. Describe the various separation techniques which is used in biological science.

OR

26. Explain the various methods of sampling and data collection.

27. Compare and contrast the principle and application of Compound Light microscope and Electron microscope.

OR

28. With flow chart explain the preparation of permanent slide by microtome sectioning.

(12 x 2 = 24)

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