

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2024**SEMESTER 6 - BOTANY****COURSE : 19U6CRBOT10 - PERSPECTIVES OF SCIENCE, METHODOLOGY AND GENERAL INFORMATICS***(For Regular 2021 Admission and Supplementary 2020/2019 Admissions)*

Time : Three Hours

Max. Marks: 60

PART A**Answer All (1 mark each)**

1. What is the basic principle of chromatography?
2. Name any two International journals published in life science.
3. What is snowball sampling?
4. The file extensions *.xls* and *.doc* represents which type of files?
5. Explain the usage of statistical symbols μ and σ .
6. Name a biological buffer system.
7. Define treatment in an experiment.
8. Write short key for cut and print.

(1 x 8 = 8)**PART B****Answer any 6 (2 marks each)**

9. What are measures of central tendencies?
10. Differentiate RAM and ROM.
11. What are the components of a typical graph that is used for data representation in biostatistics?
12. Differentiate between AGE and PAGE.
13. Differentiate inductive and deductive research.
14. Differentiate primary and secondary research.
15. What are the common properties of a normal distribution?
16. What is mode? How is it calculated?
17. What is a search engine? Name any popular search engine.
18. Differentiate between hypothesis and theory.

(2 x 6 = 12)**PART C****Answer any 4 (5 marks each)**

19. Explain the need for control and replication in an experiment.
20. Explain column chromatography.
21. Analyse and explain the advantages and disadvantages of graphical representation of data.
22. Discuss about different types of research based on its purpose.
23. Explain the role of Science Direct and INFLIBNET as academic search engines that helps education and research.
24. What are the applications of MS word?

(5 x 4 = 20)

PART D

Answer any 2 (10 marks each)

25. Discuss the principle and application of electrophoresis.
26. Explain the procedures to test hypotheses using t -test and χ^2 test.
27. Explain the contributions of Louis Pasteur.
28. Write an essay on how to use MS excel for data management and analysis. Mention the applications of MS excel.

(10 x 2 = 20)