

TB154485A

Reg. No:

Name:

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2017
SEMESTER IV - CORE COURSE (ZOOLOGY)
ZY4B04TB - BIOLOGY - THEORY AND PRACTICE

Time: Three Hours

Maximum Marks: 60

PART A

I. Answer all questions. Each question carries 1 mark.

1. What is Resolving power of a microscope?
2. Define Rf value.
3. Expand CPCSEA.
4. Name two vital stains.
5. Taxidermy

(5x1=5)

PART B

II. Answer any five questions. Each question carries 2 marks.

6. Differentiate between SEM and TEM.
7. Mention the contributions of HG Khorana.
8. Comment on Scientific drawing.
9. What do you mean by tree of life?
10. Polytomous keys.
11. Any two uses of spectrophotometry.
12. Colloquium
13. Define molarity.

(5x2=10)

PART C

III. Answer any five questions. Each question carries 5 marks.

14. What is Biology and the 5 characteristics of biology?
15. Explain the principle and working of a Phase Contrast microscope.
16. What are sampling techniques? Add a note on different types.
17. Briefly explain Biodiversity indices concept.
18. Write a note on any two separation techniques.
19. Explain the ethical guidelines for the use of animals in scientific research?
20. What is staining? Give an account of Auxochrome and chromophore groups?
21. Explain ICZN.

(5x5=25)

PART D

IV. Answer any two questions. Each question carries 10 marks.

22. Elucidate the major landmarks in biology.
23. Write an essay on chromatographic techniques.
24. Explain various insect collection methods and add a note on soft and hard bodied insect preservation methods.
25. Describe the various steps involved in research project.

(2x10 =20)