



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIFTH SEMESTER – APRIL 2023

AZ 5516 – CELL AND MOLECULAR BIOLOGY

Date: 29-04-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

Part A

Answer ALL the questions

(10 x 2= 20 Marks)

1. Define cell theory
2. Differentiate acidophilic and basophilic stain.
3. Comment on SEM and TEM.
4. Write a note on lysosome.
5. Comment on peroxisome.
6. What is biogenesis?
7. Differentiate tRNA from mRNA
8. State oxidative phosphorylation.
9. What is apoptosis?
10. Define carcinogenesis.

Part B

Answer any FOUR questions

(4 X 10=40 Marks)

11. Describe the molecular techniques involved in cell biology.
12. Give an account on ribosomes.
13. Explain giant chromosomes.
14. Illustrate the structure and functions of RNAs.
15. Describe DNA replication in eukaryotes.
16. Write notes on nuclear transplantation.

Part C

Answer any TWO questions

(2 X 20=40 Marks)

17. Write an essay on membrane transport system.
18. Write an essay on protein synthesis.
19. Explain DNA damage and repair mechanism.
20. Write an essay on cell signaling.

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