

B. Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2019**SEMESTER – 5: ZOOLOGY (CORE COURSE)****COURSE: U5CRZOO5: – CELL BIOLOGY AND MOLECULAR BIOLOGY***(For Supplementary - 2014 Admissions)*

Time : Three Hours

Max. Marks : 60

PART A*Answer **all** questions. Each question carries 1 mark.*

1. What are viroids?
2. What is Recon?
3. Define junk genes.
4. Write any two characteristics of Z-DNA?
5. What is chromosomes
6. Give two characteristics of genetic code
7. Comment on Desmosomes
8. What are transposons?

(1 x 8 = 8)**PART B***Answer **any Six** questions. Each question carries 2 marks.*

9. Give an account on cell coat and its function.
10. Draw a neat labelled typical bacterial cell
11. Define one gene – one enzyme hypothesis.
12. Differentiate heterochromatin and euchromatin
13. Describe cell cycle?
14. Explain the features of Watson and Crick's double helix model of DNA.
15. Distinguish between paracrine and autocrine signaling.
16. Discuss the contributions of Har Gobind Khorana.
17. What are the post transcriptional modifications of m-RNA.
18. What are suicidal bags? Why are they called so?

(2 x 6 = 12)**PART C***Answer **any Four** questions. Each question carries 4 marks.*

19. Write an account on the types of RNA. Discuss their functions.
20. List the major functions of Golgi body.
21. Define operon and write about lac operon.
22. Plasma membrane is a quasi-fluid membrane. Why?
23. Give an account on methods of cell signaling.
24. Distinguish between prokaryotes and eukaryotes?

(4 x 4 = 16)

PART D

Answer **any Two** questions. Each question carries 12 marks.

25. Give an account on the mechanism of protein synthesis in Eukaryotes
26. Briefly explain the different modifications of plasma membrane with diagrams?
27. Explain the structure and function of mitochondria.
28. Explain polymorphism in lysosomes

(12 x 2 = 24)