

**B.Sc. DEGREE END SEMESTER EXAMINATION OCTOBER/NOVEMBER 2018****SEMESTER –5: ZOOLOGY (CORE COURSE)****COURSE: 15U5CRZOO05: CELL BIOLOGY AND MOLECULAR BIOLOGY***(Common for Regular 2016 admission & Supplementary 2015 admission)*

Time: Three Hours

Max. Marks: 60

**Instructions:**

1. Time allotted for the examination is 3 Hours
2. Answer **all** questions in part A. Answer **any 6** questions from part B, **any 4** from part C and **any 2** from part D.

**PART A**

1. What is meant by template DNA?
2. Define apoptosis
3. What are SAT chromosomes? Give one example.
4. Define anticodon
5. Write on prions.
6. What is endomitosis
7. What is Idiogram?
8. What is attenuation?

(1 x 8 = 8)

**PART B**

9. What are lamp brush chromosomes?
10. Explain catabolite repression.
11. What are structural and regulator genes?
12. List the functions of golgi complex.
13. Explain cAMP pathway.
14. Mention the role of tRNA in protein synthesis.
15. Write on Psuedogenes.
16. Genetic code is degenerate. Justify.

(2 x 6 = 12)

**PART C**

17. Explain different types of DNA.
18. What are transposons? Explain the mechanism of transposition.
19. Give an account on split genes.
20. Describe the events in prophase of meiosis I
21. Explain the structure and functions of mitochondria.
22. Give an account of elements of cytoskeleton.

(4 x 4 = 16)

**PART D**

23. Explain the process of protein synthesis.
24. Give an account on the modifications of plasma membrane.
25. Explain the structure and chemical composition of chromosomes.
26. Describe the structure and replication of DNA molecule.

(12 x 2 = 24)

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