

TB145750A

Reg. No.....

Name.....

**B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2016**  
**SEMESTER V - CORE COURSE (ZOOLOGY)**  
**ZOO5CMB - CELL BIOLOGY AND MOLECULAR BIOLOGY**

**Time: Three Hours**

**Maximum Marks: 60**

**PART A**

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

1. What are viroids
2. Comment on citrons
3. What are microtubules
4. Write any two characteristics of Z-DNA
5. What is the role of c-AMP
6. Define one gene one enzyme hypothesis
7. What are PPLOs
8. Distinguish between pinocytosis and phagocytosis (8x1= 8)

**PART B**

**II. Answer any six questions. Each question carries carries 2 marks.**

9. Define cell theor.
10. What do u mean by GERL Concept
11. Differentiate heterochromatin and euchromatin
12. Give an account on cell coat and its function
13. Enumerate the characteristics of Genetic Code
14. Comment on Pseudogenes
15. Briefly explain signal hypothesis
16. What are transposons
17. Describe synaptonemal complex
18. Write short note on achromatic figure or mitotic apparatus (6x2=12)

**PART C**

**III. Answer any four questions. Each question carries 4 marks.**

19. Explain lac operon.
20. Explain quasi fluid membrane model of plasma membrane
21. Describe polymorphism in Lysosomes
22. What is genetic material? Explain Hershey Chase Experiment
23. Give an account on signaling molecules
24. Explain the structure and function of interphase nucleus (4x4=16)

## **PART D**

**IV. Answer any two questions. Each question carries 12 marks.**

25. Explain the mechanisms of various modes of transport across the cell membrane
26. Describe gene regulation in eukaryotes
27. Write an essay on the major events in protein synthesis
28. With the help of a diagram explain the structure and function of mitochondria

**(2x12=24)**