

**M.SC DEGREE END SEMESTER EXAMINATION OCTOBER 2016****SEMESTER – 3: ZOOLOGY****COURSE: P3ZOOT10 – CELL AND MOLECULAR BIOLOGY**

Common for Regular (2015 Admission) &amp; Supplementary / Improvement (2014 Admission)

**Time: Three Hours****Max. Marks: 75****Part A**(Answer **any Eight** Questions. Each carries 2 marks)

1. Comment on peroxisomes?
2. What is sodium –potassium pump?
3. What are cadherins?
4. Write notes on molecular motors?
5. What are hemidesmosomes?
6. Write notes on oncogenes.
7. What are the functions of Mitochondria
8. What are intermediate filaments?
9. Briefly describe Genetic code .
10. Briefly explain Apoptosis.
11. What is attenuation?
12. What is tight junction?

(2 x 8 = 16 )

**Part B**(Answer **any Seven** Questions. Each carries 5 marks)

13. Describe the new strategies for combating cancer.
14. Explain the mechanism of gene regulation in E.coli.
15. Elaborate JAK-STAT pathway.
16. Describe the gap junction?
17. Comment on the properties of cancer cells?
18. Briefly explain the structure and functions of Golgi apparatus?
19. Distinguish between mitosis and meiosis .
20. Explain the structure and function of Endoplasmic reticulum.
21. Explain RTK?
22. What is catabolite repression?

(5 x 7 = 35)

**Part C**(Answer **anyTwo** question. Each carries 12 marks)

23. Write an essay on the structure of the plasma membrane.
24. What are second messengers? Explain their role in cell signal transduction .
25. Write an essay on transcription in eukaryotes.
26. Give an account on different types of membrane transport.

(12 x 2 = 24 )

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