 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

**M.Sc.** DEGREE EXAMINATION - **ZOOLOGY**

SECOND SEMESTER – APRIL 2012

# ZO 2814 - CELL AND MOLECULAR BIOLOGY

Date : 17-04-2012 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

**Part A**

**Answer ALL the questions: (10×2=20 Marks)**

1. Define sedimentation coefficient.
2. What are tumour suppressor genes?
3. Comment on proto lysosomes.
4. Explain S-phase of cell cycle.
5. Write notes on metastasis.
6. What are carcinogens?
7. Differentiate heterochromatin from euchromatin.
8. What is selective permeable plasma membrane?
9. Define genomics.
10. Comment on puffing and gene expression.

**Part B**

**Answer any FOUR questions: (4×10=40 Marks)**

1. Explain the inherited disorders in man.
2. Give an account on mitosis.
3. Write notes on characters of cancer cells.
4. Explain transduction.
5. Discuss carcinogens and specific cancer.
6. Write an account on genetics of aging.

**Part C**

**Answer any TWO questions: (2×20=40 Marks)**

1. Explain prokaryotic and eukaryotic organization.
2. Give an account on pedigree analysis.
3. Write an essay on Lac operon.
4. Explain tumour suppressor genes, inherited cancer genes and cellular function of oncoproteins.

\*\*\*\*\*\*\*\*\*\*