 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

**M.Sc.** DEGREE EXAMINATION - **MEDICAL LAB. TECHNOLOGY**

FIRST SEMESTER – **NOVEMBER 2012**

# ML 1809 - MOLECULAR BIOLOGY

Date : 06/11/2012 Dept. No. Max. : 100 Marks

Time : 1:00 - 4:00

PART A

Answer ALL questions: 10 x 2 = 20

1. What is RNA polymerase holoenzyme?
2. Mention the role of enzymes in peroxisomes.
3. What are oncogenes and proto-oncogenes?
4. Draw the structure of nucleus and label the parts.
5. Differentiate rho-dependent from rho-independent terminators.
6. What are mutagens?
7. What is angelman syndrome?
8. Distinguish euploidy from aneuploidy.
9. Define nucleic acid hybridization.
10. Comment on sickle cell disease.

PART B

Answer any FOUR questions: 4 x 10 = 40

1. Explain plasma membrane models.
2. Explain the structure and function of RNA.
3. Characterize genetic code.
4. Explain structure of DNA.
5. Describe cystic fibrosis.
6. Explain DNA excision repair mechanisms.

PART C

Answer any TWO questions: 2 x 20 = 40

1. Describe translocation mutations in various types of cancer.
2. Draw the structure of eukaryotic cell and explain the structure Mitochondria

and Lysosomes.

1. Explain the mechanism of DNA replication.
2. Write an essay on eukaryotic chromosomes.

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