



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

FIRST SEMESTER – NOVEMBER 2011

**ML 1809 - MOLECULAR BIOLOGY**

Date : 03-11-2011

Dept. No.

Max. : 100 Marks

Time : 1:00 - 4:00

**Section – A**

Answer **ALL** questions.

10 x 2 = 20 Marks

1. Mention the role of the enzymes in peroxisomes.
2. Write down the original Wobble predictions.
3. Expand ASCLD, TWGDAM, CPT and FDA.
4. Draw the structure of the cytoskeleton in eukaryotic cell and label.
5. Define nucleosomes and telomere.
6. What are the causes for Prader willi syndrome?
7. Define patent.
8. What is non-coding DNA?
9. Draw the clover leaf model of t-RNA
10. Define tumor suppressor gene.

**Section – B**

Answer any **FOUR** of the following

4 x 10 = 40 Marks

11. Draw and explain the models of plasma membrane.
12. Describe the rules that govern the synthesis of biopolymers with illustrations
13. Give an account on the morphology and functional elements of eukaryotic chromosomes.
14. Elaborate the mechanism of transcription.
15. Explain the eukaryotic cell cycle.
16. Explain the causes and diagnosis of sickle cell anaemia.

**Section – C**

Answer any **TWO** of the following

2 x 20 = 40 Marks

17. Elaborate the mechanism of DNA repair.
18. Explain the laboratory personnel and laboratory accreditation of a molecular diagnostic laboratory.
19. Describe gene and chromosome mutations with illustrations.
20. Give an account on cystic fibrosis.

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