



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION - MEDICAL LAB. TECHNOLOGY

FIRST SEMESTER – APRIL 2013

ML 1809 - MOLECULAR BIOLOGY

Date : 25/04/2013

Dept. No.

Max. : 100 Marks

Time : 9:00 - 12:00

SECTION –A

Answer ALL questions:

10x2=20 marks

1. What is mutagenesis?
2. Define centromere and heterochromatin.
3. Define patent.
4. Mention the role played by the enzymes in peroxisomes.
5. Draw the clover leaf model of t-RNA.
6. Write the original wobble predictions.
7. Name the start and stop codons.
8. Define nucleosomes and telomere.
9. Expand ICD, CLIA, CPT and FDA.
10. Differentiate cilia from flagella.

SECTION B

Answer any FOUR of the following:

4x10=40 marks

11. Draw and explain the models of plasma membrane
12. Describe the characteristic features of genetic code.
13. Elaborate the mechanism of transcription.
14. Give an account on clinical test formats.
15. Define chromosomes and explain how the DNA is organized into chromosomes.
16. Describe the rules that govern the synthesis of biopolymers with illustrations.

SECTION-C

Answer any TWO of the following:

2x20=40 marks

17. With a neat flow chart for establishing the molecular diagnostic laboratory, explain Laboratory facilities and Laboratory personnel.
18. Explain the mechanism of replication.
19. What is syndrome? Explain a) Prader willi syndrome and b) Sickle cell anaemia.
20. Draw the structure of eukaryotic cell and explain a) Endoplasmic reticulum b) Peroxisomes and c) Golgi bodies.
