



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – MEDICAL LAB TECHNOLOGY

FIRST SEMESTER – NOVEMBER 2014

ML 1813 - MOLECULAR BIOLOGY AND CLINICAL BIOCHEMISTRY

Date : 06/11/2014

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

PART-A

Answer ALL the questions:

(10 X 2=20 Marks)

1. Mention the importance of enzyme Taq polymerase.
2. Comment on Ryle's tube.
3. What is alkaptonuria?
4. Name any four tumor markers.
5. Distinguish leading strand from lagging strand.
6. What are codons and anticodons?
7. Differentiate antenatal screening from postnatal screening.
8. What are missense and non - sense mutations?
9. Comment on apoptosis.
10. Define the term hyperchlorhydria.

PART-B

Answer any FOUR of the following:

(4 X 10 =40 Marks)

11. Discuss different methods of gene therapy.
12. Write short notes on galactosemia and glycogen storage disease.
13. Explain the structure and functions of DNA with suitable diagram.
14. What is clearance? Classify and explain urea clearance test.
15. Elaborate the formation and function of bilirubin and add a note on jaundice.
16. Describe the clinical importance of tumor markers with suitable example.

PART-C

Answer any TWO of the following:

(2 X 20=40 Marks)

17. Discuss different laboratory investigations to evaluate gastric function.
18. Elaborate polymerization chain reaction and its applications with suitable diagram.
19. Explain the formation, function and clinical importance of thyroid hormones.
20. Discuss the mechanism of protein biosynthesis with suitable diagram.
