 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SECOND SEMESTER – **APRIL 2012**

# ML 2954 - ADVANCED LAB.TECHNIQUES

 Date : 21-04-2012 Dept. No. Max. : 100 Marks

 Time : 9:00 - 12:00

***Answer ALL the questions:* PART A 10x2=20 marks**

1. What is DNA chip technology?
2. Comment on contamination control in molecular lab.
3. List down DNA testing methods.
4. What are transgenic organisms?
5. Differentiate pre-amplification from post-amplification room.
6. What are cosmids?
7. Distinguish T4 bacteriophage.
8. Differentiate cell based from cell free DNA cloning.
9. Comment on gene mapping.
10. Define obligatory paternal gene.

**Answer any FOUR: PART B 4x10=40 marks**

1. Describe DNA polymorphism.
2. Explain the clinical applications of microarray.
3. Write notes on application of DNA in forensic science.
4. Give short account on western blotting technique.
5. Describe types of PCR.
6. Write notes on gene therapy.

**Answer any TWO: PART C 2x20=40 marks**

1. Give an account on educational and training requirements for personnel working in molecular laboratories.
2. Write an essay on electrophoretic separation.
3. Give an account on Stem cells.
4. Explain in detail the parentage testing.

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