 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – APRIL 2012

# ML 4809 - NON-INVASIVE TECHNIQUES

Date : 16-04-2012 Dept. No. Max. : 100 Marks

Time : 1:00 - 4:00

**SECTION –A**

**Answer ALL questions: 10x2=20 marks**

1. Differentiate transducer from sensor.

2. Define ultrasound.

3. What is the need for breast compression in mammography?

4. How will you report the normal value in visual acuity test?

5. Comment on the normal circulatory filling in florescein angiography.

6. List down the source of biomedical signals in human body.

7. What are the basic densities on an x ray film?

8. Define infective mastitis.

9. Draw the blood flow patterns detected by ultrasonography.

10. Mention the types of computed tomography.

**SECTION B**

**Answer any FOUR of the following: 4x10=40 marks**

11. Explain the patient preparation, procedure and interpretations of DEXA.

12. Give an account on evoked potential studies.

13. Describe the procedure, advantages and limitations of virtual colonoscopy.

14. Explain patient preparation, procedure and clinical applications of SPECT.

15. Write notes on the types of leads and interpretations of electrocardiography.

16. Describe the technological variations and procedure of ultrasonography.

**SECTION-C**

**Answer any TWO of the following: 2x20=40 marks**

17. Explain the principle, patient preparation, procedure and clinical applications of MRI.

18. Give a detailed account on patient preparation, procedure and findings of EEG.

19. Explain the principle, procedure and clinical findings of PET.

20. Describe the types, patient preparation, procedure and abnormalities of mammography.

\*\*\*\*\*\*\*\*