



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

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

**FOURTH SEMESTER – APRIL 2014**

**ML 4809 - NON-INVASIVE TECHNIQUES**

Date : 27/03/2014

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

**SECTION –A**

**Answer ALL questions**

**10x2=20 marks**

1. Differentiate ionizing from non-ionizing radiation.
2. Draw the block diagram of basic medical instrumentation system.
3. Write the normal phases in fluorescein angiography.
4. Mention the frequency of ultrasound waves.
5. What is dobutamine stress test?
6. List the basic densities on an X ray film.
7. What is the need for breast compression in mammography?
8. Mention the causes of retinopathy.
9. What is the purpose of evoked potential studies?
10. Differentiate radionuclide from radiopharmaceutical.

**SECTION B**

**Answer any FOUR of the following**

**4x10=40 marks**

11. Give an account on visual evoked potential test.
12. Describe the types of leads and interpretations of ECG.
13. Discuss the purpose, procedure and advantages of EMG.
14. Explain the procedure and interpretations of DEXA.
15. Write down principle, procedure and limitations of virtual colonoscopy.
16. Describe the principle and procedure of PET.

**SECTION-C**

**Answer any TWO of the following**

**2x20=40 marks**

17. Explain the types, principle, procedure and purpose of computed tomography.
18. Describe the principle, patient preparation, procedure and limitations of MRI.
19. Elaborate the purpose, patient preparation and procedure of EEG.
20. Discuss the principle, procedure and advantages of ophthalmoscopy.

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