 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

FOURTH SEMESTER – APRIL 2011

# ML 4809 - NON-INVASIVE TECHNIQUES

Date : 5/4/2011 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

**SECTION –A**

Answer **ALL** the following**. 10x2=20 marks**

1. Define montage.

2. What is dobutamine stress test?

3. Schematically represent the production of gamma rays in positron emission tomography.

4. What are the causes of retinopathy?

5. List the causes of hyper and hypo fluorescence.

6. Mention the factors responsible for image quality in magnetic resonance imaging.

7. Expand CRVO and BRVO.

8. Mention the basic densities on an x-ray film.

9. What are the limitations of virtual colonoscopy?

10. Write the purpose of computed tomography.

**SECTION B**

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

11. Give an account on occuloplethysmography and occulopneumoplethysmography.

12. Explain the principle and procedure of single photon emission computed tomography.

13. Describe Transcranial doppler studies.

14. Explain the procedure and interpretations of dual energy x-ray absorptiometry.

15. Elaborate the principle and procedure of electromyography.

16. Explain the procedure, advantages and limitations of virtual colonoscopy.

**SECTION-C**

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

17. Explain the block diagram and working mechanism of x-rays.

18. Discuss the principle, components and clinical findings of magnetic resonance imaging.

19. Describe the principle, procedure and clinical interpretations of positron emission tomography.

20. Explain the principle, procedure, advantages and disadvantages of opthalmoscopy.

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