

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – MEDICAL LAB. TECHNOLOGY

FOURTH SEMESTER – APRIL 2010

ML 4809 - NON-INVASIVE TECHNIQUES

Date & Time: 15/04/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART – A

Answer **ALL** the questions

10 x 2 = 20 Marks

1. List the sources of biomedical signals in human body.
2. What are the four basic densities on an X- ray?
3. Distinguish Radionuclide from Radiopharmaceutical
4. What are the factors responsible for the image quality in magnetic resonance imaging?
5. Mention the normal circulatory filling in fluorescein angiography
6. Define infective mastitis.
7. What is Doppler effect?
8. Differentiate conventional from spiral computed tomography.
9. What are the causes for hyper and hypo fluorescence?
10. Define ultrasound.

PART – B

Answer any **FOUR** questions

4 x 10 = 40 Marks

11. Describe the purpose, procedure and interpretations of dual energy x-ray absorptiometry.
12. Give an account on stress testing.
13. Explain the procedure and interpretations of electromyography and nerve conduction studies.
14. Describe the purpose and procedure of direct and indirect ophthalmoscopy.
15. Define electrodes and enumerate the types of electrodes with neat diagrams.
16. Discuss single photon emission tomography in detail.

PART – C

Answer any **TWO** questions

2 x 20 = 40 Marks

17. Draw and explain the general block diagram, procedure and clinical findings of electroencephalography.
18. Describe the principle, technological variations and procedure of ultrasonography.
19. Give a detailed account on visual acuity test.
20. Explain the procedure and abnormal findings of mammography.
