SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Third Year (Semester-V) Examination May-2013 B.Sc. Imaging Technology (IMT)

Time: 2.30 Hrs.

Max. Marks: 80]

Paper – I DIAGNOSTIC IMAGING TECHNIQUES Q.P Code : AHS-119

Your answers should be specific to the questions asked. Draw neat labelled diagrams wherever necessary.

LONG ESSAY

 $2 \times 10 = 20 \text{ Marks}$

- 1. Mention all the imaging modalities you know of for hepato biliary imaging. Draw and label the anatomy of biliary system.
- 2. Explain the principles of MRI.

SHORT ESSAY (Answer any Six)

 $6 \times 5 = 30 \text{ Marks}$

- 3. CT 2D 3D Image Production.
- 4. Spiral CT/ Helical CT.
- 5. MR Image artifacts.
- 6. Ultra sound scan.
- 7. Piezoelectric effect.
- 8. Doppler effect.
- 9. CT Numbers.
- 10. Explain radio activity.

SHORT ANSWERS (Answer any Ten)

 $10 \times 3 = 30 \text{ Marks}$

- 11. B Scan.
- 12. Continuous wave Doppler.
- 13. Spin echo.
- 14. Production of radio nuclides.
- 15. Scan converter.
- 16. Positron.
- 17. Q Factor.
- 18. Liquid helium.
- 19. Ultra sound gel characteristics.
- 20. Free induction decay.
- 21. Acoustic coupling agent.
- 22. Window level and window width

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Paper – II Radiographic Techniques-II Q.P Code : AHS-120

Your answers should be specific to the questions asked. Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

- 1. What is nuclear medicine? Discuss its role in internal medicine with special reference to various radiopharmaceuticals used in imaging.
- 2. Additional investigations. Explain (1) Echo cardiogram (2) Doppler

SHORT ESSAY (Answer any Six)

 $6 \times 5 = 30 \text{ Marks}$

- 3. Non ionic contrast media
- 4. Transducers
- 5. MR image artifact
- 6. Head and Neck angiogram
- 7. CT myelography
- 8. Responsibility of radiographer during procedures
- 9. What is the contrast media
- 10. Uses of PET scan and advantages of PETscan.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Uses of DSA
- 12. What is I.V.P? and contra indication
- 13. What is HSG? How many days after last menstrual period(LMP) HSG can be done
- 14. What is a small Bowell enema and contra indications
- 15. Types of X ray
- 16. What is MCU? Write two contra indications
- 17. What is Sailo gram? Write the preparation of the
- 18. Properties of X ray
- 19. Urograffine-76% uses
- 20. What is contrast media? Name the different contrast medias?
- 21. Radiation protection ten day rule
- 22. Trachea esophageal fistula imaging