

**B.Sc. Allied Health Sciences Third Year (Semester-V)**

**February / March -2018 Examination**

**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 X 10 = 20 Marks**

1. Describe the pulse sequences used in MRI
2. Describe the principles of Gamma Camera.

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. CT Artifacts.
4. Pressure injector.
5. Interventional CT guided procedures.
6. Contrast materials.
7. Radio frequency and gradient field artifacts.
8. Construction of Tc-99m generators.
9. Precautions in handling radioisotopes.
10. Principles of gas filled detectors in nuclear medicine.

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Differences between A, B, M modes and also real time USG.
12. Barium Titanate.
13. Inversion Recovery.
14. MR artifacts.
15. Para magnetism.
16. Photomultiplier.
17. CT Radiation Dose and safety.
18. Gadolinium DTPA.
19. K-Space.
20. M-Mode.
21. CT Angiography.
22. Properties of X-ray.

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**Paper – II**

**Radiographic Techniques-I**

**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 the technique of enteroclysis.
2. What are the various available barium studies? Write in detail about barium meal study.

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. Gastrograffin enema.
4. Seldinger technique.
5. Single plane and biplane subtraction angiography.
6. Sialography.
7. Barium swallow.
8. Hypotonic duodenography.
9. Construction in image intensifier.
10. Different ways of contrast media administration.

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Patient preparation for HSG.
12. Precaution and after care for Angiographic procedures.
13. Bilbo – dotter tube.
14. Catheterization sites.
15. Atomic number of iodine and barium.
16. Vesiculography.
17. Trans femoral Arteriography.
18. Echo cardiogram.
19. Optimization.
20. Methylcellulose.
21. Non-ionic contrast media.
22. Chiba needle.