

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**  
(New Syllabus 2014-2015)

**THIRD YEAR**

**PAPER II – MODERN IMAGING TECHNIQUES AND  
RECENT TRENDS IN IMAGING**

*Q.P. Code: 801837*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Explain basic cardiac imaging, planning and myocardial visibility study in MRI.
2. Types of contrast in imaging – CT and MRI.
3. Describe mechanisms of radioactive decay in detail.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Gas-Filled Detectors.
2. Color doppler imaging.
3. Radioisotope Generator.
4. Structure of atom.
5. Artifacts in PET-CT.
6. Parallel multi-hole collimator.
7. Mass Attenuation Coefficient.
8. DMSA scan.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Cyclotron.
2. Gastric emptying study.
3. Tracers used in infection imaging.
4. Low pass and high pass filter.
5. Filters.
6. Inverse square law.
7. Heel effect.
8. Tc99 bones scan.
9. Tele radiology.
10. MRI artifacts.

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