

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

THIRD YEAR

PAPER I – EQUIPMENTS OF MODERN IMAGING MODALITIES

Q.P. Code: 801836

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Discuss about Radio frequency coils. Explain the various signal encoding for image formation in MRI.
2. Explain CT artifacts in detail.
3. Discuss in detail the Digital Radiography. Mention the advantages of digital radiography over conventional radiography.

II. Write notes on:

(8 x 5 = 40)

1. Discuss about any three artifacts in MRI.
2. Contrast media used in MRI.
3. Explain CT windowing.
4. Explain the physical properties of Ultrasound.
5. Explain fifth generation CT.
6. Radio Isotope generator.
7. Photomultiplier tube.
8. Single Photon Emission Computed Tomography (SPECT).

III. Short answers on:

(10 x 3 = 30)

1. Shimming.
2. Acoustic coupling.
3. Bow tie filter.
4. Proton density weighted imaging and its applications.
5. Reverberation artifact in ultrasonography.
6. Tesla.
7. Gradient coil.
8. Focused transducer.
9. Phased array transducer.
10. TR and TE in MRI.
