

[LK 0217]

FEBRUARY 2017

Sub Code: 1821

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY /
RADIO DIAGNOSIS TECHNOLOGY**

THIRD YEAR

PAPER I – EQUIPMENTS OF MODERN IMAGING MODALITIES

Q.P. Code: 801821

Time : Three Hours

Maximum : 100 Marks

Answer All questions.

I. Elaborate on :

(3 x 10 = 30)

1. Explain CT artifacts in detail.
2. Explain about MRI equipment.
3. Explain interaction of Ultrasound with matter, and different display modes in Ultrasound.

II. Write Notes on:

(8 x 5 = 40)

1. Explain spiral CT.
2. Explain xenon gas detectors in CT.
3. Explain CT windowing.
4. Explain the construction of Ultrasound transducer.
5. Various pulse sequence in MRI.
6. Explain the physical principle of mammography machine.
7. Principle of PET-CT.
8. Explain types of transducers used in Ultrasound.

III. Short Answers on:

(10 x 3 = 30)

1. What is FID in MRI?
2. Explain Larmor frequency in MRI.
3. Define pixel in CT.
4. Explain Piezo electric effect.
5. Uses of PACS.
6. Principle of DSA.
7. Define mass attenuation coefficient.
8. Bio effects of MRI.
9. Gradient coils in MRI.
10. What are the advantages of PET-CT?
