

[LJ 0816]

AUGUST 2016

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 in detail the various generations of CT.
2. Describe in detail about the mammography equipment.
3. Explain in detail the Physical principle of MRI.

II. Write Notes on:

(8 x 5 = 40)

1. Explain scintillation detector used in CT.
2. Explain the principle of PET-CT.
3. Explain Fraunhofer Zone in Ultrasound.
4. What are the viewing conditions for mammography films?
5. Explain fifth generation CT.
6. Explain the principle of Doppler effect in Ultrasound.
7. Explain dose length product in CT.
8. Explain the Physical properties of Ultrasound.

III. Short Answers on:

(10 x 3 = 30)

1. What is piezo electric effect?
2. Explain Larmor frequency in MRI.
3. Define mass attenuation coefficient.
4. Define Voxel.
5. What is the basic principle of DSA?
6. What are the uses of PACS?
7. What are the types of image reconstruction in CT?
8. Explain screen film system in mammography.
9. What is F.I.D in MRI?
10. What are the advantages of PET-CT?
