

[LN 0818]

AUGUST 2018

Sub. Code: 1836

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 in detail the various generations of the CT scanners. Mention the advantages of the multislice CT scanner over conventional CT.
2. Describe in detail the various parts of a mammography equipment.
3. Describe about the different flat panel detectors used in X-ray imaging.

II. Write notes on: **(8 x 5 = 40)**

1. Explain the principle of PET-CT.
2. Explain Fraunhofer Zone in Ultrasound.
3. Spin echo sequence.
4. Superconductive magnet.
5. Factors affecting image quality in computed radiography.
6. Larmor frequency in MRI.
7. Factors affecting image quality in MRI.
8. Nuclear imaging in myocardial perfusion.

III. Short answers on: **(10 x 3 = 30)**

1. Piezo-electric effect.
2. Flip angle.
3. Ring artifacts.
4. CT number.
5. What is wrap around artifact in MRI?
6. Scintillation detector.
7. B mode in ultrasound.
8. T2w imaging.
9. What is the basic principle of DSA?
10. What are the uses of PACS?
