

[LQ 0220]

FEBRUARY 2020

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. Give a detailed account of the physical properties of ultrasound and how images are formed in ultrasound scanner?
2. Discuss in detail about CT equipment.
3. Describe the physical principle of DSA.

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

1. Mammographic x-ray tube.
2. Doppler ultrasound imaging.
3. Image reconstruction in CT.
4. Types of magnet used in MRI.
5. Pulse sequences in MRI.
6. Gamma Camera.
7. Physical principle of PET.
8. PACS.

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

1. Advantages of compression in mammography.
2. Mammographic X-ray film.
3. Artifacts in ultrasound imaging (any one).
4. CT Number.
5. CTDI.
6. Larmour Frequency.
7. T1 weighted image.
8. Advantages of MRI over CT images.
9. Give physical properties of any one of radioactive isotope used in Nuclear Medicine.
10. Image fusion.

\*\*\*\*\*