[LH 0815] **AUGUST 2015** **Sub Code: 1803**

B.Sc. RADIOLOGY IMAGING TECHNOLOGY

FIRST YEAR

PAPER III – RADIO DIAGNOSIS EQUIPMENTS, MAINTENANCE AND QUALITY CONTROL

Q.P. Code: 801803

Time : Three Hours **Maximum : 100 Marks**

Answer All questions.

I. Elaborate on: **(3 x 10 = 30)**

1. Draw simple x-ray circuit and explain why each part is located there.
2. Describe in detail, the various types of digital radiography.
3. Describe in detail, the principle of CT with various generations.

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

1. High frequency x-ray generator circuit.
2. Theory of semiconductor diode.
3. Principle of computed radiography.
4. Mammographic x-ray tube.
5. Half wave rectification.
6. Thin film Transistor.
7. Line focus principle.
8. Anode heel effect and factors affecting it.

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

1. Filtration.
2. Cooling in rotating anode x-ray tube.
3. Contrast Media.
4. Forward Bias.
5. Autotransformer.
6. Automatic exposure control.
7. Anode heel effect.
8. Self rectifier.
9. Advantages of digital radiography.
10. X-ray tube rating.

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