[LD 0212] **AUGUST 2013** **Sub. Code: 1402**

DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY
FIRST YEAR
PAPER II – GENERAL PHYSICS, RADIATION PHYSICS & PHYSICS OF DIAGNOSTIC RADIOLOGY

Q.P. Code : 841402

Time : Three hours **Maximum : 100 marks**

Answer All questions.

I. Elaborate on : **(3x10 = 30)**

1. Describe the construction and working of modern x-ray tube.
2. Explain in detail about the photoelectric effect of radiation.
3. Write in detail about construction and working of ionization chamber.

II. Write short notes on: **(10X5= 50)**

1. Write briefly about properties of X-ray.
2. Sub atomic particles.
3. Excitation
4. Tube current
5. Electromagnetic radiation
6. X-ray efficiency
7. Explain the phenomenon of magnetism
8. Radiation survey meter
9. Radioactive decay
10. Principle of line focus.

III. Short answers on: **(10X2=20)**

1. Define Ohm’s law
2. Einstein’s formula
3. What is the SI unit of radioactivity
4. Voltmeter and Ammeter
5. What is nucleon
6. Define work
7. Name the target material commonly used in X-ray tube
8. Atomic number and mass number
9. Define energy
10. What is element.

****