

[LE 0212]

FEBRUARY 2014

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. Draw neat diagram of X-ray tube and explain about each parts of X-ray tube.
2. Describe the different types of radiation detection.
3. Explain about different methods of atomic structures.

II. Write short notes on:

(10X5= 50)

1. Atoms and molecules
2. Photo electric effect
3. Explain inverse square law
4. Magnetism
5. Thermionic emission
6. X-ray circuit
7. Factors influencing X-ray beam quality and quantity
8. Half value layer
9. Self induction
10. Tube voltage

III. Short answers on:

(10X2=20)

1. Mass number
2. Define work
3. What is convection
4. Define electric potential
5. Melting point of X-ray target material and atomic number
6. What is current
7. Define power and give its unit
8. What is the charge and mass of an neutron
9. Filament current
10. What is radiation?
