[LM 0218] FEBRUARY 2018 **Sub. Code: 1402**

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

Q.P. Code: 841402

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

Answer All questions.

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

1. Explain Bremsstrahlung production and Characteristic of X-ray spectrum.
2. Discuss the Interaction of Radiation with Matter.
3. Explain the TLD Personal Monitoring device and brings out its silent features over the Film Badge.

II. Write notes on: **(10 x 5 = 50)**

1. Auto Transformer.
2. Capacitor and Capacitance.
3. Ionization and Excitation.
4. Mutual Induction.
5. Radiation Survey Meter.
6. Fleming's Left hand Rule.
7. MA circuit.
8. Theory of Transformer.
9. The atomic structure and Molecules.
10. Properties and production of X-rays.

III. Short answers on: **(10 x 2 = 20)**

1. What is Characteristic X-rays?
2. Radioactivity Decay.
3. Define Power and Energy.
4. Define HVL.
5. Tube Current.
6. Isotope.
7. Magnetic Induction.
8. Focussing cup.
9. Voltmeter and Ammeter.
10. Atomic Number.

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