THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0122]   **JANUARY 2022**   **Sub. Code: 1422**
(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

DIPLOMA IN RADIOGRAPHY AND IMAGING TECHNOLOGY
FIRST YEAR (Regulation 2018-2019)
PAPER II – GENERAL PHYSICS, RADIATION PHYSICS AND PHYSICS OF
DIAGNOSTIC RADIOLOGY
Q.P. Code : 841422

Time: Three hours   **Answer ALL Questions**   **Maximum: 100 Marks**

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

1. Describe the different types of radiation detection.
2. Describe the different types of radioactivity.
3. Describe the construction and working of modern x-ray tube

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

1. Atoms and molecules.
2. Principle of Line focus
3. Filament current.
4. Pair production.
5. Explain inverse square law.
6. State Electro Magnetic Law
7. Mutual induction.
8. Radiation survey meter
9. Personnel monitoring device.
10. Force, Work, Power

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

1. Electromagnetic spectrum
2. Mass number.
3. Define HVL.
4. Thermionic emission
5. Transformer
6. Fluorescence.
7. Binding energy
8. Voltmeter and ammeter
9. Fleming's left-hand rule
10. Focussing cup.

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