

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

**[AHS 1023]**

**OCTOBER 2023**

**Sub. Code: 2504**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
FIRST YEAR (From 2020-2021 onwards)  
PAPER V – RADIATION SAFETY AND PROTECTION**

***Q.P. Code: 282504***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate notes on:**

**(2 x 20 = 40)**

1. What is Quality Assurance and Quality control? Write in detail about Quality Assurance in computed Tomography.
2. Write in detail about various different types of Radiation detectors and Measurements and explain about the Advantages and Disadvantages.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Explain about Primary Standard Dosimetry Laboratory [PSDL] and Secondary Standard Dosimetry Laboratory [SSDL].
2. Explain about the Free Air Ionization Chamber.
3. Write briefly on AERB.
4. Explain about Deterministic and Stochastic Effect of Radiation.
5. Explain about Sources of Radiation.
6. What is QA Phantom?
7. Write briefly on X-ray Beam Alignment Test.
8. Write short note on General Radiography Installation with Layout plan.
9. Explain about Cosmic Ray and Terrestrial Radiation.
10. What is eLORA?

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