

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

[AHS 0321]

**MARCH 2021**

**Sub. Code: 2504**

**(OCTOBER 2020 EXAM SESSION)**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY**

**FIRST YEAR (From 2019-2020 onwards)**

**PAPER IV – 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. Write in detail about advantages & disadvantages of various radiation detectors & appropriateness of different detectors for different type of radiation measurement.
2. Write in detail about quality control in digital imaging.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. What is CT Dose Index (CTDI).
2. Write brief on Average Glandular Dose (AGD) in mammography.
3. What is ALARP.
4. Write short note on Protection in paediatric imaging.
5. Write short note on Film badge.
6. What are the dose reduction strategies used in fluoroscopy.
7. Write brief on Radiation survey meter.
8. What is eLORA.
9. Write short note on Film storage quality control.
10. What is QA phantom.

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

[AHS 0222]

**FEBRUARY 2022  
(OCTOBER 2021 EXAM SESSION)**

**Sub. Code: 2504**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
FIRST YEAR  
(Candidates admitted from 2019-2020 onwards – Paper IV)  
(Candidates admitted from 2020-2021 onwards – Paper V)  
PAPER IV & 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. Describe the quality assurance for computed tomography.
2. Explain in detail about the biological effects of radiation.

**II. Write Short Notes on:**

**(10x6 = 60)**

1. Write brief on X-ray output measurement.
2. Write short note on General radiography installation with plan layout.
3. Write short note on Radiation exposure control.
4. Write brief on AERB.
5. What are the responsibilities of radiological safety officer (RSO).
6. Write brief on the Geiger Muller (GM) counter.
7. Write short note on Pocket dosimeter.
8. What is Thermoluminescent dosimeter.
9. Write short note on dose limits to public.
10. Importance of X-Ray beam collimation.

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

[AHS 0522]

MAY 2022

Sub. Code: 2504

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
FIRST YEAR**

(Candidates admitted from 2019-2020 onwards – Paper IV)

(Candidates admitted from 2020-2021 onwards – Paper V)

**PAPER IV & 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)**

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