

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 1414

**DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY
SECOND YEAR – (Regulation from 2010-2011)
PAPER IV – QUALITY CONTROL IN RADIOLOGY AND RADIATION SAFETY
Q.P. Code: 841414**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Explain the various effects of Radiation on the Human body.
2. List and explain the various Personnel Monitoring Devices.
3. Describe the Quality Assurance for computed Tomography.

II. Write notes on:

(10 x 5 = 50)

1. What is Equivalent Dose?
2. Natural sources of Radiation.
3. Tube Housing Leakage.
4. Central Beam Alignment test for Radiography unit.
5. What are the guidelines for using Film Badge.
6. Explain about Area monitoring.
7. Explain the working and use of the Film Badge.
8. Write short notes about Pocket Dosimeter.
9. Describe the X-Ray Dark room interior.
10. Stochastic effect and Non-stochastic effect.

III. Short answers on:

(10 x 2 = 20)

1. What is ALARA?
2. Explain about Occupancy factor?
3. Define Exposure?
4. What is MPD?
5. What is Roentgen?
6. Explain the use Factor?
7. What is Filter?
8. Equivalent Dose and Effective Dose?
9. Write briefly about Phantoms?
10. Gantry tilt assessment in CT?
