

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

**[AHS 0122]**

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

**Sub. Code: 2512**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
SECOND YEAR (From 2019-2020 onwards)  
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN  
DIAGNOSTIC RADIOLOGY AND IMAGING  
*Q.P. Code : 282512***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe the quality control procedures in conventional radiography.
2. Write in detail about quality assurance and quality control in MRI.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Measurement of CT dose index.
2. Screen-film cassette speed matching.
3. Phantom measurements in CT.
4. Quality assurance record keeping.
5. mAs test.
6. SMPTE.
7. Sensitometry.
8. Cassette leak check.
9. Grid alignment test.
10. Film contrast.

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

**[AHS 1022]**

**OCTOBER 2022**

**Sub. Code: 2512**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
SECOND YEAR (From 2019-2020 & 2020-2021 onwards)  
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN  
DIAGNOSTIC RADIOLOGY AND IMAGING**

*Q.P. Code : 282512*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain the quality control procedures in mammography.
2. Write in detail about quality assurance and quality control in MRI.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Light beam alignment.
2. Safe light test.
3. Characteristic curve.
4. Film speed resolution.
5. Test of time linearity.
6. Proper screen-film contact test.
7. Focal spot size measurement.
8. Field alignment test for fluoroscopy.
9. Routine cleaning of equipment and instruments.
10. Phantom measurements in CT.

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

**[AHS 1023]**

**OCTOBER 2023**

**Sub. Code: 2512**

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY  
SECOND YEAR (From 2020-2021 onwards)  
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN  
DIAGNOSTIC RADIOLOGY AND IMAGING**

*Q.P. Code: 282512*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe the quality control procedures of cathlab X-ray equipment's.
2. Explain about quality control and quality assurance fluoroscopy devices.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Write about real time ultrasonography.
2. Write about Quality Assurance and quality control in digital radiography.
3. X-ray output and beam quality test.
4. List the source of radiation.
5. Write about characteristic curve.
6. SMPTE.
7. Beam ailment and collimation.
8. MRI artifacts.
9. Measurement of CT dose index.
10. Write about Linearity of mA and Tube housing leakage.

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