

[LP 1019]

OCTOBER 2019

Sub. Code: 1812

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS
SECOND YEAR
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN
DIAGNOSTIC RADIOLOGY AND IMAGING**

Q.P. Code : 281812

Time: Three hours

Maximum : 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Describe the quality control procedures of computed tomography.
2. Write in detail about the quality control techniques in digital imaging.

II. Write notes on: **(10 x 6 = 60)**

1. Test of time linearity.
2. Qa phantom.
3. Beam alignment and collimation.
4. Exposure linearity and reproducibility.
5. Focal spot size measurement.
6. Millimperes linearity test.
7. Grid alignment test, screen film cassette speed matching.
8. Conversion factor.
9. Tube housing leakage.
10. Spatial linearity of gamma camera.

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

[AHS 0321]

MARCH 2021

Sub. Code: 1812

(OCTOBER 2020 EXAM SESSION)

M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY

SECOND YEAR (From 2017-2018 onwards)

**PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN
DIAGNOSTIC RADIOLOGY AND IMAGING**

Q.P. Code : 281812

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Describe the quality control procedures and quality assurance in Digital Radiography.
2. Write in detail about Quality Assurance and quality control in MRI.

II. Write Short Notes on:

(10x6 = 60)

1. SMPTE pattern
2. Phantom measurements in CT.
3. Sensitometry
4. Faults tracing in radiography
5. X-ray out-put and beam quality check
6. Timer check in radiography
7. Evaluation of results of routine testings in Computed tomography.
8. Cassette leak check
9. Safe light test
10. Maintenance of automatic processor and manual processing units

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[AHS 0921]

**SEPTEMBER 2021
(MAY 2021 EXAM SESSION)**

Sub. Code: 1812

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY
SECOND YEAR (From 2017-2018 onwards)
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN
DIAGNOSTIC RADIOLOGY AND IMAGING
*Q.P. Code : 281812***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Describe the quality control procedures and quality assurance in CT.
2. Write in detail about Quality Assurance and quality control in USG.

II. Write Short Notes on:

(10x6 = 60)

1. Record keeping and log book maintenance
2. Phantom measurements in USG.
3. Film latitude & Film contrast
4. LASER film printer calibration
5. Focal spot size and angle measurement
6. High and low contrast resolutions in radiography
7. Quality assurance of X ray generator and tube
8. Proper screen-film contact test
9. Field alignment test for fluoroscopic device
10. Maintenance of Cassette & Screen

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[AHS 0122]

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

Sub. Code: 1812

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY
SECOND YEAR (From 2017-2018 onwards)
PAPER II – QUALITY ASSURANCE AND QUALITY CONTROL IN
DIAGNOSTIC RADIOLOGY AND IMAGING
*Q.P. Code : 281812***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Quality assurance tests for Fluoroscopy units.
2. Name various tests for quality assurance of radiography units. Write about Linearity of mA and Tube housing leakage.

II. Write Short Notes on:

(10x6 = 60)

1. Mechanical tests for CT.
2. Measurement of CT dose index.
3. Output consistency checking in Radiography unit.
4. Film storage quality control.
5. Temporal accuracy of timer.
6. Acceptance testing of procedures of general radiographic equipment.
7. Screen – Film – cassette speed matching.
8. Write briefly about phantoms.
9. Write about Total filter estimation.
10. Write about different shielding materials.
