

[LG 0215]

FEBRUARY 2015

Sub Code: 1824

**B.Sc. RADIOLOGY IMAGING TECHNOLOGY**

**THIRD YEAR**

**Paper IV – QUALITY CONTROL IN RADIOLOGY**

*Q.P. Code: 801824*

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer All questions.**

**I. Elaborate on:**

**(3 x 10 = 30)**

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

**II. Write notes on:**

**(8 x 5 = 40)**

1. Mechanical tests for CT.
2. Linearity of mA assessment.
3. Counting rate performance of Gamma camera.
4. Quality assurance test of Linear accelerator.
5. Temporal accuracy of HDR Brachytherapy.
6. Measurement of CT dose index.
7. Image quality tests in PET-CT.
8. Out put consistency checking in Radiography unit.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Pinprick test for HDR brachytherapy.
2. CT dose index.
3. Tests for resolution in CT.
4. Staggered autoradiography.
5. Gantry tilt assessment in CT.
6. Write briefly about phantoms.
7. Contrast sensitivity of fluoroscopy unit.
8. Test of CT number linearity.
9. Focal spot size assessment.
10. Spatial linearity of Gamma camera.

\*\*\*\*\*