

B.Sc. NUCLEAR MEDICINE TECHNOLOGY

THIRD YEAR

PAPER III – QUALITY ASSURANCE IN NUCLEAR MEDICINE

Q.P. Code: 802123

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. NEMA tests for a SPECT gamma camera.
2. Test to find the reliability of a radiation counting equipment.
3. COR Test and its significance on clinical image.

II. Write notes on:

(8 x 5 = 40)

1. Tomographic uniformity.
2. Collimator hole angulation test.
3. List the tests for a Dose calibrator.
4. Intrinsic Uniformity of a gamma camera.
5. Constancy and accuracy test of Dose calibrator.
6. Necessary documents for licensing of a SPECT gamma camera facility.
7. Linearity of Dose calibrator.
8. How to setup a nuclear medicine Lab?

III. Short answers on:

(10 x 3 = 30)

1. Jaszack Phantom.
2. PLES phantom.
3. QA for registration of SPECT and CT system.
4. UFOV.
5. FWHM.
6. SNR.
7. Tomographic resolution.
8. SPECT resolution with scatter.
9. Extrinsic Flood.
10. CTDI.
