

B.Sc. NUCLEAR MEDICINE TECHNOLOGY

SECOND YEAR

PAPER I – PHYSICS OF NUCLEAR MEDICINE INSTRUMENTATION

Q.P. Code: 802111

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. Types of collimator. Describe in detail.
2. Statistics of counting. Describe Chi-square test.
3. Rectilinear scanner. Describe in detail.

II. Write Notes on:

(8 x 5 = 40)

1. Pulse height analyser.
2. Fluorescent scanning.
3. List mode acquisition.
4. Time activity curves.
5. Differential counting.
6. 511 Kev photon.
7. Gamma probe.
8. Geiger Muller counter.

III. Short answers on:

(10 x 3 = 30)

1. Dead time correction.
2. Voltage amplifier.
3. Integral counting.
4. Types of measurement error.
5. Isotope Calibrator.
6. Confidence limit.
7. Gaussian distribution.
8. ISO response curves.
9. Rate meters.
10. Sensitivity of gamma camera.
