

[LP 1019]

OCTOBER 2019

Sub. Code: 4033

**M.Sc. MEDICAL PHYSICS EXAMS  
SECOND YEAR  
PAPER III – PHYSICS OF NUCLEAR MEDICINE AND INTERNAL  
DOSIMETRY**

*Q.P. Code: 284033*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. PET- detector, design, construction, coincidence detection and applications.
2. Therapy room planning with delay tank and approval as per AERB.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Quality control of Radiopharmaceuticals.
2. Any diagnostic procedure in detail.
3. Convert Bq to Ci and vice versa for 100 Bq, 370Bq, 500Bq.
4. Pre & Post instructions to patients for I131 Radionuclide therapy.
5. RIA Procedure and Limitations.
6. Quality control procedure for Uniformity, Resolution & COR in Gamma Camera.
7. Protective clothing.
8. Various reconstruction techniques-advantages and disadvantages.
9. Rectilinear scanner.
10. Compartment model.

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