

[LN 0818]

AUGUST 2018

Sub. Code: 2121

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY**

**THIRD YEAR**

**PAPER I – RECENT ADVANCE IN NUCLEAR MEDICINE TECHNIQUES**

*Q.P. Code: 802121*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Registration of PET CT imaging principles.
2. Principle and working of PET.
3. Iterative reconstruction techniques of SPECT imaging.

**II. Write notes on:**

**(8 x 5 = 40)**

1. C11-Choline.
2. Beam Hardening artifact.
3. Time of Flight.
4. Reducing the random noise in PET.
5. List three cardiac PET radiopharmaceuticals and its mechanism.
6. Stereotactic radio surgery.
7. Gross tumour volume.
8. Maximum intensity projection.

**III. Short answers on:**

**(10 x 3 = 30)**

1. Voxel.
2. Brown fat.
3. Segmentation.
4. Biological tumour volume.
5. Use of markers on Radiotherapy Planning.
6. Sinogram.
7. Butterworth filter.
8. DaTscan.
9. Surface rendering.
10. DICOM.

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