

[LN 0818]

AUGUST 2018

Sub. Code: 2112

**B.Sc. NUCLEAR MEDICINE TECHNOLOGY
SECOND YEAR
PAPER II – RADIOCHEMISTRY AND RADIO PHARMACY**

Q.P. Code: 802112

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe about Radio-iodinated Radiopharmaceuticals
2. Explain the construction of liquid generator and Quality control of ^{99m}Tc -Eluate.
3. What is pH value? Describe the role of pH in preparation of radiopharmaceuticals.

II. Write notes on:

(8 x 5 = 40)

1. Explain the receipt storage and disposal of radioactive materials.
2. Explain molecular Biology and Biochemistry.
3. Explain short lived Radionuclides.
4. Preparation of standard (Reference) solution.
5. Explain oxidation and Reduction.
6. Explain line of stability.
7. Atomic and Molecular structure.
8. Describe the coordinate covalent bond.

III. Short answers on:

(10 x 3 = 30)

1. Hydrogen Ion concentration.
2. Tin pyrophosphate.
3. Lyophilization.
4. Why do we wait for 48 Hrs for TWB Image after TWB dose?
5. Valency and Atomic Weight.
6. Compartmental models.
7. Monoclonal Antibody.
8. Explain Mo99m Contamination check.
9. Why is ^{131}I -mIBG is taken up by neuroblastoma?
10. Describe Effective Half-Life.
