[LK 0217] FEBRUARY 2017 **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. Explain the mechanism and localization of radiopharmaceuticals.
2. Explain the various equilibrium's in generator produced radionuclides.
3. Explain cell labeling with Tc^{99m}.

II. Write Notes on: **(8 x 5 = 40)**

1. Radio-iodination methods.
2. Radionuclide generators for Tc^{99m}.
3. pH importance in radiopharmaceuticals.
4. LAL test.
5. Chromatography.
6. Moly breakthrough test.
7. Reactor produced radionuclides.
8. Radionuclide separation techniques.

III. Short Answers on: **(10 x 3 = 30)**

1. Tc99m DTPA structure.
2. Antioxidants.
3. Various bone imaging tracers.
4. Coordination bone.
5. Chelating agents.
6. Radiolysis.
7. I131 mIBG.
8. Centrifuge.
9. Neutron capture.
10. Tracers used for infection imaging.

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