Rajiv Gandhi University of Health Sciences

II Year M. Sc Medical Imaging Technology - OCT-2019

[Time: 3 Hours] [Max. Marks: 80]

Nuclear Medicine Imaging Techniques

Q.P. CODE: 9549

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer Any Two) **2 X 10 = 20 Marks**

1. Write the principle and construction of Tc99m generator.
2. Describe the application of radiation monitoring equipment.
3. Write the radiation safety for personal and public nuclear medicine.

SHORT ESSAY (Answer Any Eight) **8 X 5 = 40 Marks**

4. Write the characteristic of radio-pharmaceuticals.
5. Pin hole and parallel hole collimators in gamma camera.
6. Dose calibration in nuclear medicine.
7. Modes of radioactivecay.
8. Write the principle of tracer technique.
9. Write the bone scintigraphy procedure.
10. Precaution while handling the radioactive material.
11. Write about thyroid uptake system.
12. Explain briefly about pair production.
13. Write the preparation of pharmaceuticals.

SHORT ANSWERS (Answer Any Ten) **10 X 2 = 20 Marks**

14. Binding energy of an atom
15. Hot lab
16. Dose modifying factors
17. Indications for renal scan study
18. Wipe testing
19. MDP
20. PMT
21. Radiolabeling
22. Rectilinear scan
23. Avalanche photodiode
24. Rectilinear scan
25. Isotopes

****