

# Question Paper

Exam Date & Time: 19-Apr-2022 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH SEMESTER B.Sc. N.M.T. DEGREE EXAMINATION - APRIL 2022  
SUBJECT: BNMT 301 - RADIOPHARMACY - II  
(2016 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Describe the basic construction of cyclotron and explain different types. (20)
- 2) Describe the drug development process in detail. (20)
- 3) Describe guidelines for Good hospital radio-pharmacy practices (GHRP). (10)
- 4) Describe different radio-iodination process for labelling protein molecules. (10)
- 5A) What are the Ideal characteristics of a therapeutic radionuclide? (5)
- 5B) Describe the biological characteristics of Tc-99m. (5)
- 5C) Write briefly about F18 radiochemistry. (5)
- 5D) What are the factors affecting the bio-distribution of radio-pharmaceuticals? (5)
- 5E) Explain freeze drying process. (5)
- 5F) Write a brief note on clinical application/s of C14. (5)
- 6A) Name a drug that promotes I131 uptake in the thyroid tissue. (2)
- 6B) Which radionuclides can be used for synovectomy of large joints? (2)
- 6C) Write the principle of paper column chromatography. (2)
- 6D) Which radionuclide can best substitute I-131 for uptake studies? (2)
- 6E) What is plasma protein binding value? (2)

-----End-----