

# Question Paper

Exam Date & Time: 02-May-2019 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Specialization: Pharmaceutics  
MPharm Semester II - End Semester Examination May 2019  
Exam Date: 02-05-2019

### Molecular Pharmaceutics Nano Tech and Targeted DDS [PCE-MPH201T]

Marks: 75

Duration: 180 mins.

#### SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Define and classify Nanoparticles. Mention different methods of preparation of polymeric nanoparticles and explain any ONE method in detail. (10)
- 2) Explain the methods of preparation of resealed erythrocytes. (10)
- 3) What are dendrimers? Classify dendrimers. Enumerate the applications of dendrimers. (10)
- 4) Write about the various approaches for brain targeting. Mention the various methods to prepare carbon nanotubes and nanofibers. (10)
- 5) Discuss the approaches for gene therapy. (10)

#### SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) What are different methods of preparation of microspheres? Explain any ONE method in detail. (5)
- 7) Add a short note on Evaluation of Liposomes. (5)
- 8) Discuss different drug delivery systems used for intra-nasal delivery of drugs. (5)
- 9) Write a note on Evaluation of Pulmonary controlled drug delivery systems. (5)
- 10) Add a note on Biosimilars. (5)

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