

Exam Date & Time: 27-Nov-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Drug Delivery Systems [PCE-MPH102T - S2]

Marks: 75

Duration: 180 mins.

II Long Answers

Answer all the questions.

- 1) Discuss the principle and composition of i) Ion exchange resin complex based drug delivery systems and ii) Matrix tablets in detail. (10)
- 2) Classify the various types of polymers with examples. Add a note on their applications. (10)
- 3) What are the formulation considerations for gastro-retentive dosage forms? Briefly explain Altered density and Expansive Gastro-retentive drug delivery systems. (10)
- 4) Write the principal of Osmotic pumps. Classify Oral Osmotic pumps and explain any ONE type in detail. (10)
- 5) What are the barriers for protein and peptide delivery? Add a note on approaches for oral delivery of proteins and peptides (10)

III Short Answers

Answer all the questions.

- 6) What is the need for personalized medicine? Describe the categories of patients for personalized medicine (5)
- 7) Mention different Microencapsulation techniques and explain any ONE technique in detail. (5)
- 8) Add a note on the theories of mucoadhesion (5)
- 9) What are different types of Ocular inserts? Add a note on any ONE type of Ocular insert. (5)
- 10) Write about different components of Transdermal Delivery systems (5)

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& Time: 02-Dec-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Modern Pharmaceutics [PCE-MPH103T]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

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

- 1) Explain XRD, DSC, FTIR as an analytical tool for compatibility assessment of drug and excipient. (10)
- 2) Define Inventory control. Explain ABC and EOQ methods of Inventory control. (10)
- 3) Explain the physics of tablet compression. Describe the effects of friction during tablet compression. (10)
- 4) Discuss the various types of validation. (10)
- 5) Explain the simplex method of optimization. (10)

SECTION - B

Answer all the questions.

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

- 6) Explain SMEDDS and Phase Diagram. (5)
- 7) Describe the building requirements to be complied with for Current Good Manufacturing Practices. (5)
- 8) Discuss f_1 and f_2 factors for the comparison of dissolution profiles. (5)
- 9) Explain Korsmeyer Peppas kinetic model. (5)
- 10) Discuss validation master plan. (5)

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