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Manipal College of Pharmaceutical Sciences

Manipal Academy of Higher Education, Manipal

MPharm Semester I - End Semester Make-up Examination, January 2023

PCE-MIP103T: Novel Drug Delivery Systems (Theory)

Date: 20-01-2023

Duration: 3h

Max. Marks: 75

Instructions: Answer ALL questions.

I. Answer the following

10 marks × 5 = 50 marks

1. Classify activation modulated drug delivery systems. Explain different types of rate preprogrammed drug delivery systems.
2. Explain in detail the advantages and disadvantages of the colon-targeted drug delivery system. Discuss the microbially controlled system in detail.
3. Explain the components of transdermal drug delivery systems with a suitable diagram.
4. Define liposomes and write its advantages and disadvantages. Explain any two methods of preparation of liposomes.
5. Write in detail about the advantages and limitations of a gastro retentive drug delivery system (GRDDS) and explain the mechanism of any two approaches of GRDDS.

II Answer the following

5 marks × 5 = 25 marks

6. Classify biodegradable polymers with one example each. Explain the polymer degradation mechanism.
7. Write a note on nano-based cosmeceuticals.
8. Explain the factors that favor denaturation of proteins.
9. Explain various evaluation parameters of the microemulsion.
10. What is 3D printing? Discuss the pharmaceutical applications of 3D printing.