

FACULTY OF PHARMACY

**M.Pharmacy (pharmaceutics) I-Semester (PCI) (Main & Backlog) Examination,
February 2020**

Subject: Drug Delivery System

Time: 3hrs

Max Marks: 75

Note: Answer any five questions, all questions carry equal marks.

- 1 Explain physiochemical and biological approaches for designing SR formulations? (15)
- 2 What do y mean by personalized medicines? Describe in detail bioelectronic medicines and telepharmacy. (15)
- 3 Explain the principles of rate controlled drug delivery systems? Write a note on osmotically controlled drug delivery systems? (15)
- 4 a) Mention different types of gastroretentive drug delivery system? Mention its advantages and disadvantages? (5)
b) Describe in detail buccal drug delivery system? (10)
- 5 Explain the principles and theories of mucoadhesion? Add a note on mechanisms of mucosal drug permeation? (15)
- 6 a) Describe barriers of ocular drug delivery system and what are methods to overcome the same? (8)
b) Write a note on transdermal permeation enhancers? (7)
- 7 What are the barriers of protein drug delivery? Explain varis modified formulations of proteins and peptides to overcome the absorption barriers? (15)
- 8 What are the advancements in vaccine delivery systems? Explain transdermal delivery of vaccines? (15)
