

FACULTY OF PHARMACY

**M. Pharmacy (Pharmaceutics) I-Semester (PCI)(Main & Backlog) Examination,
January 2019**

Subject : Drug Delivery System

Time: 3 Hrs

Max. Marks: 75

Note: Answer any Five Questions. All Questions Carry Equal Marks.

1. (a) Compare sustained release, delayed release and controlled drug delivery system with examples? 6
(b) Define pharmacogenetics? Explain telepharmacy? 9
2. (a) What do you mean by activation modulated system? Explain osmotic drug delivery system? 8
(b) Classify rate controlled drug delivery system? Explain feedback regulated systems 7
3. (a) What are the barriers of buccal mucoadhesive drug delivery system? Mention two examples of marketed mucoadhesive drug delivery system? 7 7
(b) Explain in detail floating drug delivery systems? 8
4. (a) Describe formulation and evaluation of ocular drug delivery system? 10
(b) What are ocular insitu gels? 5
5. (a) Explain structure of skin? What are barriers of transdermal permeation? What are the ideal properties of a drug candidate to permeate through the skin? 10
(b) Classify transdermal permeation enhancers? Explain the mechanism of permeation enhancers? 5
6. (a) Explain in detail various strategies to formulate a stable protein and peptide drug formulations? 8
(b) Describe physical and chemical stability of protein and peptides? 7
7. (a) Explain in detail mucosal and active transdermal methods of delivering vaccines through mucosa and skin? 8
(b) Write a note on single shot vaccines? 7
8. (a) Explain various physiochemical and biological factors that influence the SR and CR formulations? 10
(b) Classify polymers? Explain properties of any two synthetic biodegradable polymers? 5
