

FACULTY OF PHARMACY**M. Pharmacy (Pharmaceutics) I-Semester (Suppl.) Examination,****August 2019****Subject : Drug Delivery System****Time: 3 Hrs****Max. Marks: 75****Note:** Answer any Five Questions. All Questions Carry Equal Marks.

1. (a) Define personalized medicine? Explain bioelectronic medicines and 3D printing of pharmaceuticals? 10
(b) What are biodegradable polymers? Explain the mechanism of polymer degradation? 5
2. (a) Classify rate controlled drug delivery system? Explain in detail rate preprogrammed drug delivery system? 8
(b) Explain osmotic drug delivery system? 7
3. (a) Describe in detail theories of mucoadhesion? 10
(b) Explain in detail evaluation of gastro retentive drug delivery system? 5
4. (a) What are the barriers of ocular drug delivery system? 5
(b) Describe in detail formulation of ocular DDS? 10
5. Define vaccine? Write a note on uptake of antigens and permeation of vaccines thrgh mucosal & transdermal rte? 15
6. Classify transdermal drug delivery system? Describe in detail active and passive methods of transdermal DDS? 15
7. (a) What are the stability issues of proteins and peptides? 7
(b) Explain non-invasive rtes of administration of protein and peptides ? 8
8. (a) Explain in trandermal permeations enhancers and write abt its mechanism of improving permeation? 8
(b) Write a note on telepharmacy? 7
