Ex/MPH102T/2024

M. PHARMACY FIRST YEAR, FIRST SEMESTER EXAMINATION, 2024
DRUG DELIVERY SYSTEM

Time: Three hours **Full Marks: 75**

Answer any five questions taking at least one from each group

Group A

1. Define and classify activation-modulated drug delivery systems. Explain vapour pressure activated drug delivery system. Write the equation with description for drug release from micro-reservoir partition controlled drug delivery system. Describe in detail about glucose responsive drug delivery system. 3+4+4+4=15

2. Write the various factors influencing drug absorption after topical administration. List out the static and dynamic barriers. How conjunctiva acts as a barrier for ocular transport of drug? Describe in detail about prodrug and micro-emulsion to overcome ocular barrier. 3+3+4+5 = 15

Group B

3. a) What are the advantages & limitations of Gastro Retentive Drug Delivery Systems? b) Give an overview on buoyancy dependent system. 15

4. a) What are Muco adhesive Drug Delivery Systems? b) What are the advantages of such delivery systems over conventional delivery systems? c) How can you maximize bioavailability from intra ocular administrations? 15

Group C

5. a) Write the components of transdermal patch with example in details or Classify Different approaches of TDDS. And explain with a diagram (each one). b) Write in details about how to evaluate transdermal formulations. (5+5) +5=15

6. a) Classify types of protein. b) How proteins are delivered in the parenteral route. c) What is denaturation, write the factor affecting denaturation of protein and how to prevent denaturation write in details. 4+4+(1+2+4)=15

Group D

7. What are the problems of conventional drug delivery systems? How can you overcome such problems? What are the various mechanisms of drug release from a sustained release drug delivery system? 4+4+7=15

8. a) Discuss about design considerations of a sustained release drug delivery system.

b) " Natural polymers are often derivatized to get the tailor made modified polymer". Explain. 7+8=15