Roll No. | | | | | | | | | | | | | Total No. of Pages : 1

Total No. of Questions : 06

M.Pharmacy (Pharmaceutics) (2017 Batch) (Sem.–2)

ADVANCED BIOPHARMACEUTICS & PHARMACOKINETICS

Subject Code : MPH-202

Paper ID : [74962]

Time : 3 Hrs. Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of SIX questions.**
2. **Each question carries FIFTEEN marks.**

1. a) Discuss the physiological factors influencing drug absorption. (7.5)

   b) Describe the Noyes-Whitney equation and explain its utility in explaining drug dissolution. (7.5)

2. a) Explain pH-partition hypothesis for predicting drug absorption. (7.5)

   b) Enumerate the dissolution techniques recognized in the pharmacopeia. How sink condition can be maintained during dissolution? (7.5)

3. a) Distinguish one compartment from two compartment model. Explain the reasons and key parameters for observing one- and two- compartment models. (7.5)

   b) Write a note on plasma protein binding and its implications. (7.5)

4. a) What are biosimilars? Briefly explain biosimilars and their general compendial requirements. (7.5)

   b) Give an account of the drug interactions taking place due to interaction with transporters. (7.5)

5. a) What is non-linear pharmacokinetics? Mention the reasons for this behavior with suitable examples. (7.5)

   b) Discuss briefly the study designs used for bioequivalence evaluation. Mention the limitations and advantages of each design. (7.5)

6. Write short notes on : (5×3 = 15)

   a) Absolute and relative bioavailability.

   b) Gene therapy.

   c) IVIVC.