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Total No. of Pages : 01

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

ADVANCED BIOPHARMACEUTICS AND PHARMACOKINETICS

Subject Code : MIP-201T

M.Code : 74931

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

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

Q.1 a. Name various theories explaining drug dissolution and enlist the factors affecting dissolution rate. 8

b. Discuss the limitations and significance of pH-partition hypothesis. 7

Q.2 Discuss various methods used for bioavailability enhancement by enhancing permeability of drugs. 15

Q.3 a. What are merits and demerits of Wagner-Nelson method in computing Ka? 5

b. What is flip-flop phenomenon and when is it observed? 5

c. Elaborate the type of compartmental models. Why catenary model is less useful then mammillary model? 5

Q.4 a. What are various types of bioequivalence studies? 8

b. State the plateau principle. Which parameters govern attainment of steady-state? 7

Q.5 Write short notes on the following :

a. Discuss the pharmacokinetics of modified-release drug products. 8

b. What are the various compendial dissolution apparatus designs? Discuss briefly stating their applications. 7

Q.6 Discuss the following with suitable examples :

a. Statistical moments theory. 5

b. Cross over & carry over study design . 5

c. Plasma half life ($t_{1/2}$), AUC & AUMC. 5

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.