Printed Pages : 1 **Roll No.** | | | | | | | | | | | **PHAR523**

M. PHARM. (SEM–II)

CARRY OVER EXAMINATION 2016-17

BIO-PHARMACEUTICS & PHARMACOKINETICS

Time : 3 Hours ***Max. Marks : 100***

Note : *Be precise in your answer. In case of numerical problem assume data wherever not provided.*

1. **Attempt any Two parts of the following:** **2 × 10 = 20**

(a) Discuss the various physicochemical factors affecting drug absorption also explain flip flop model.

(b) How does protein binding affect distribution of drugs?

(c) What are the different modes of drug transport across the cellular membrane? Discuss their mechanism with examples.

2. **Attempt any Two parts of the following:** **2 × 10 = 20**

(a) Discuss one compartment open model (iv bolus) of administered drug.

(b) Give a note on non compartmental pharmacokinetics.

(c) Write in detail about sigma minus method and wagner nelson method.

3. **Attempt any Two parts of the following:** **2 × 10 = 20**

(a) What is bioavailability of drugs? Discuss various method of determining bioavailability of drugs.

(b) Discuss bioequivalence study design with special reference to BCS.

(c) Explain how plasma drug concentration data can be useful in estimating bioavailability and discuss the pharmacokinetics parameters determined from the plasma data.

4. **Attempt any Two parts of the following:** **2 × 10 = 20**

(a) Explain the general methods used for dasage adjustment in renal disease.

(b) What do you understand by individualization and optimization of dosage regimens?

(c) Define dose ratio? Why it is always smaller for extravasculary administered drug?

5. **Attempt any Two parts of the following:** **2 × 10 = 20**

(a) What are clinical trials? Discuss in detail various principles of clinical trial.

(b) Briefly describe about phase I and phase II clinical trials.

(c) Write a note on research methodology used in clinical trial study.