**Printed Pages:01** **Sub Code:MPH202**

**Paper Id:** 900273 **Roll No.** | | | | | | | | | | |

**M.PHARM**

**(SEM II) THEORY EXAMINATION 2018-19**

**ADVANCED BIOPHARMACEUTICS & PHARMACOKINETICS**

***Time: 3 Hours*** ***Total Marks: 70***

**Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt *all* questions in brief.** **2 x 7 = 14**

a. Write Noyes– Whitney equation.
b. Define the term biopharmaceutics
c. What is compartment modelling?
d. Write a short note on pharmacogenomics.
e. Discuss extraction ratio.
f. Explain rate-limiting steps in drug absorption
g. Explain clinical significance of bioequivalence

**SECTION B**

**2. Attempt any *three* of the following:** **7 x 3 = 21**

a. Describe mechanism of drug absorption and factors affecting drug absorption.
b. Discuss the biopharmaceutical factors affecting drug bioavailability.
c. Explain Michaelis–Menten equation.
d. Explain compendial methods of dissolution and alternative methods of dissolution testing.
e. Write a note on one compartment model- IV bolus.

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**SECTION C**

**3. Attempt any *one* part of the following:** **7 x 1 = 7**

(a) Write a note on correlation of in vivo data with in vitro dissolution data
(b) Write a detailed note on protein binding of drug.

**4. Attempt any *one* part of the following:** **7 x 1 = 7**

(a) Discuss design and evaluation of bioequivalence studies
(b) Explain cytochrome p450-based drug interactions

**5. Attempt any *one* part of the following:** **7 x 1 = 7**

(a) Explain biosimilar drug products
(b) Write a note on Monoclonal antibodies

**6. Attempt any *one* part of the following:** **7 x 1 = 7**

(a) Classify compartment models and explain them with concept.
(b) Discuss the application of pharmacokinetic models.

**7. Attempt any *one* part of the following:** **7 x 1 = 7**

(a) Write a detailed note on drug transport.
(b) Write a note on clinical significance of bioequivalence studies