Printed Pages: 01 **Sub Code: MPA202T**

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M. PHARM.
(SEM II) THEORY EXAMINATION 2017-18
MODERN BIO-ANALYTICAL TECHNIQUES

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a. What is bioequivalence?
b. Define protein precipitation.
c. What is EMEA?
d. Define in-situ and in-vivo method.
e. Define proteomics.
f. Differentiate Pharmacokinetics and Toxicokinetics.
g. What is cell culture media?
h. What is the general procedure for cell culture?
i. Give the protocols for metabolite identification.
j. Write about clinical significance of bioequivalence studies.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

a. Discuss the principle and procedures involved in bio-analytical methods.
b. What is bioavailability? Give the biopharmaceutical factors affecting drug bioavailability.
c. Give a note on In-vitro assay of drug metabolites & drug metabolizing enzymes.

SECTION C

3. Attempt any *five* parts of the following: 7 x 5 = 35

a. Explain the USFDA guidelines.
b. Write a note on transport models.
c. Give a note on microsomal assay.
d. Discuss the basic equipment's used in cell culture.
e. Discuss Cytochrome P 450 based drug interactions.
f. Give the principle and applications of flow cytometry.
g. Discuss design and evaluation of bioequivalence studies.