Printed Pages: 01 **Sub Code: MPA202**

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

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

Note: 1. Attempt all Sections.

SECTION A

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

a. Describe prodrug in short.
b. What do you mean by Good clinical practice?
c. Describe SPE sorbents.
d. Define solid phase extraction.
e. Give the principle involved in LC MS.
f. What are methods used for extraction of drugs?
g. Describe origin of GCP.

SECTION B

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

a. Discuss analysis of drugs in use and drugs in research.
b. Describe requirements and guidelines for GCP.
c. What are facilities required to conduct BA/BE studies.
d. Give general principle and procedure involved in protein precipitation methods.
e. Describe principle, construction and working of HPLC.

SECTION C

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

(a) Write about drug metabolites, other drugs and safety considerations.
(b) Give properties of the biological media, small organic molecules used in biological matrices.

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

(a) Give guidelines for ICH and ICMR.
(b) Describe documentation of GCP practice. Give audit of GCP compliance.

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

(a) Give the maintenance of records of BA/BE studies.
(b) Give introduction and design for BA/BE studies.

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

(a) Discuss about liquid- liquid extraction methods for the extraction of drugs.
(b) Give principle and procedure involved in solid phase extraction methods.

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

(a) Discuss separation of biomolecules by LC-MS/MS in details.
(b) Describe principle, construction and working of Gel electrophoresis.