Printed Pages: 01 **Sub Code: MPL-203T**
Paper Id: 2 9 8 2 1 0 **Roll No.**

M. PHARM.
(SEM. II) THEORY EXAMINATION 2017-18
PRINCIPLES OF DRUG DISCOVERY

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

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

SECTION A

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

a. What is the role of argonaute protein in RNA interference?
b. Name the amino acid associated zinc ion.
c. Highlight the difference between protein motif and protein domain.
d. What do you mean by protein threading?
e. Give an overview of Phamacophore-based drug design.
f. What is 4D-Pharmacophore?
g. What do you mean by Taft's steric factor?
h. Write a note on MIA-QSAR Strategy.
i. Write the objective of the partial least square analysis.
j. What is Tripartite prodrug? Give examples.

SECTION B

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

a. Describe the role of transgenic animals in target validation.
b. How NMR and X-ray crystallography techniques involved in protein structure prediction?
c. Discuss the history and development of QSAR. Differentiate between SAR and QSAR.

SECTION C

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

a. What do you mean by lead? Explain methods for lead discovery.
b. Explain threading and homology modeling methods.
c. Discuss the role of high-throughput screening for drug discovery.
d. Discuss pharmacophore mapping approach for drug target identification.
e. Write a note on de novo drug design. What do you mean by "Growing" in de novo drug design?
f. Write a detailed note on rationale of prodrug design.
g. Discuss Multivariate statistical analysis methods in QSAR.