Printed Pages:01 **Sub Code: MPL 203T**

Paper Id: 298203 **Roll No.** | | | | | | | | | | |

M PHARM
(SEM II) THEORY EXAMINATION 2018-19
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 are antisense oligonucleotides?
b. Define regression analysis.
c. Write application of high throughput screening.
d. What is rational drug design?
e. Write the application of Comparative molecular field analysis (CoMFA)
f. Discuss the disadvantages Hansc Analysis.
g. Write the concept of drug likeness screening.
h. Explain briefly pharmacophore mapping in virtual screening.
i. How NMR helps in protein structure prediction.
j. Define domains and folds in protein structure.

SECTION B

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

a. Discuss the role of lead identification and lead optimization in modern drug discovery process.

b. Discuss in detail about solid phase combinatorial synthesis with suitable examples.

c. Explain in detail about high throughput screening.

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SECTION C

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

a. Discuss history and development of QSAR.

b. Explain relationship between free Wilson and hansch analysis.

c. Write short note on partial least square analysis (PLS).

d. Discuss in detail about threading of protein structure.

e. Explain briefly about Virtual Screening techniques used in drug discovery.

f. Explain the steps involved in homology modeling methods in dug discovery process.

g. Explain the rationale of prodrug design and practical consideration of prodrug design.

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