



Seat No. : _____

TD-114

M. Sc. Sem.-IV

May-2013

510 CHED Chemistry (Organic) (Selected Topics in Medicinal Chemistry)

Time : 3 Hours]

[Max. Marks : 70

1. Answer the following questions :

- (a) (1) Write a note on development of new drug. 4
(2) Write a note on lead compound identification. 3

OR

- (1) Write a brief note on "Soft Drugs". 4
(2) Write a note on "Pro Drug". 3
(b) (1) Write a brief note on phase III clinical trials. 4
(2) Write a brief note on literature of medicinal chemistry. 3

OR

Discuss structure activity relationship in detail. 7

2. Answer the following questions :

- (a) (1) Write a note on phase I drug metabolism. 4
(2) Explain enzyme stimulation in the metabolism of drug by giving one appropriate example. 3

OR

- (1) Write a note on phase II drug metabolism. 4
(2) Explain enzyme inhibition in the metabolism of drug by giving one appropriate example. 3
(b) (1) Describe in brief on pharmacokinetic parameter of drug absorption. 4
(2) Describe in brief on pharmacokinetic parameter of elimination. 3

OR

Write a detail note on use of pharmaceuticals in drug development process. 7

3. Answer the following questions :

(a) (1) Give a brief note on Oral dosage form. 4

(2) What are "Open Access" online journals in Chemistry ? Give a brief overview for online journals in Chemistry. 3

OR

(1) Give classification on types of dosage forms and brief note on topical dosage form. 4

(2) Write some names of software to draw chemical structures. Give out lines on importance of software. 3

(b) Write a note on modern methods of pharmaceutical analysis. 7

OR

(1) Give the background and development of Indian Pharmacopoeias in brief. 4

(2) Give brief note on quality control of any drug based on pharmacopoeias. 3

4. Answer the following questions :

(a) (1) Write a note on importance of nanoparticles in treatment of Cancer. 4

(2) Write a note on Nanonephrology. 3

OR

Give a brief overview of nanorobots and cell repair machines. 7

(b) Write a note on nanomaterials in drug delivery. 7

OR

(1) Write a note on protein and peptide delivery for nanomedicine. 4

(2) Give brief note on importance of nanotechnology in surgery. 3

5. Answer the following questions :

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- (1) What is nanotechnology ?
 - (2) What is STN ?
 - (3) What is drug ?
 - (4) What is potency of drug ?
 - (5) What is pharmacopoeias ?
 - (6) What stands for SAR ?
 - (7) What is the role of Q.C. department ?
 - (8) What is QSAR ?
 - (9) What is 3D-QSAR ?
 - (10) What is lipophilicity ?
 - (11) What is "Lead optimization" ?
 - (12) What is the unit of nanoparticle ?
 - (13) What is pharmacopoeia monograph ?
 - (14) Define partition coefficient.
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