



MBV-003-1104015

Seat No. _____

M. Sc. (Sem. IV) (CBCS) Examination

April / May - 2018

Organopharmaceutical Chemistry : (COP) - 404

(Advanced Medicinal Chemistry) (New Course)

Faculty Code : 003

Subject Code : 110415

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) All questions carry equal marks.

1 Answer any **seven** of the following ten questions : **14**

- (a) Explain the term absorption of drug by drawing a suitable graph.
- (b) Define polymorphism, pseudopolymorphism.
- (c) Explain solvents and hydrates.
- (d) Define and explain the term QSAR.
- (e) Explain the term biotransformation.
- (f) Explain protein binding of drugs.
- (g) Define, Combinatorial chemical library.
- (h) Draw at least two structures of good scaffolds as per Lipinski rule.
- (i) Define the term IPR.
- (j) Explain the term distribution of drugs and disposition of drugs.

2 Answer the following : **14**

- (a) Give a brief account on Mix and Split method to prepare chemical libraries.
- (b) Discuss the combinatorial synthesis of benzodiazepine, where phenyl rings without hydroxyl substitution.

OR

- 2**
- (a) Explain Tea-bag method to prepare combinatorial libraries with suitable example.
 - (b) Write a note on Photolithography for the identification of structure in combinatorial chemistry.

- 3** Answer any **three** of the followings : **14**
- (a) Write a short note on Copyright.
 - (b) What is Trademark? Differentiate trademark and Trade secret.
 - (c) What types of inventions can be patented ?
 - (d) What is patent infringement ? Write about the types of infringement.
- 4** Answer the followings : **14**
- (a) Discuss Fickes Law of diffusion and explain terminology in details.
 - (b) Mention in brief modified Noyswhitney equations.
 - (c) Write a note on protein binding of drugs.
- 5** Answer the followings : (any **two**) **14**
- (a) Explain with examples biotransformation involving phase-I and phase-II reactions.
 - (b) Define and explain in brief : Prodrugs and its merits.
 - (c) Write the synthesis of S-cettrizinedihydrochloride.
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