

Roll No. ....

Total Pages : 03

LMDQ/M-24

**7529**

PHARMACEUTICAL CHEMISTRY

(SPECIAL-IV)

CHEM-402 (OBES/LOCF)

Time : Three Hours]

[Maximum Marks : 60

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Section.

**Section A**

1. (a) How screening of natural compounds useful in drug design ?  
(b) What do you understand by a lead compound ?  
(c) Discuss the two prodrugs of amine-containing drug.

**6,2,4**

2. (a) Write a short note on drug latentiation.  
(b) Enlist the factors affecting bioactivity.  
(c) Describe the advantages of soft drugs.  
(d) Explain the induced fit theory of drug activity.

**2,2,4,4**

### Section B

3. How are the following physicochemical parameters significant in QSAR : **6,6**
- (a) Taft's steric factor
  - (b) Lipophilicity.
4. Explain the mechanism of the reactions catalyzed by : **6,6**
- (a) Thiamine pyrophosphate
  - (b) FMN.

### Section C

5. (a) Discuss in detail the parallel synthesis approach in combinatorial chemistry.
- (b) Explain the following :
- (i) Molecular libraries
  - (ii) Deconvolution. **6,6**
6. Write notes on the following : **12**
- (a) HTS
  - (b) Docking.

### Section D

7. (a) Classify enzymes citing the relevant examples.
- (b) Describe Michaelis-Menten equation. Also discuss Lineweaver-Burk plots. **3,9**

8. (a) Give the details of the following :
- (i) Enzyme specificity
  - (ii) Affinity labelling.
- (b) Explain the reversible and irreversible inhibitors with examples. **4,8**