



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 150601

Roll No.

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B. Pharm.

(SEM. VI) THEORY EXAMINATION, 2014-15
PHARMACEUTICAL CHEMISTRY-VI (MED CHEM II)

Time : 3 Hours]

[Total Marks : 80

1 Answer any two of the following: (8×2=16)

- Define pharmacophore and discuss the methods of discovery and optimization of pharmacophore.
- Define drug design. Discuss its role in computer aided drug design (CADD).
- Define QSAR. Discuss in detail about steric parameters and Taft's steric parameter.

2 Answer any four of the following: (4×4=16)

- Write about chemistry and positive inotropic effect of cardiac glycosides.
- Discuss the chemical classification of Anti-hypertensive drugs with suitable examples.
- Give the synthesis and SAR of β -adrenergic blockers.
- Give the synthesis and mechanism of action of Isosorbide Mononitrate .
- Write the SAR and synthesis of Captopril.

- 3 Answer any two of the following: (8×2=16)**
- (a) Give the chemical classification of H1 Antagonist. Discuss in detail the SAR of H1 Antagonist with suitable examples.
 - (b) Give the chemical classification of alkylating agents and explain the mechanism of action of alkylating agent.
 - (c) Give the synthesis and mechanism of action of any two :
 - i) Methotrexate
 - ii) 6-Mercaptopurine
 - iii) 5-Fluorouracil
- 4 Answer any four of the following: (4×4=16)**
- (a) Explain the SAR and mechanism of action of Sulfonamides.
 - (b) Discuss the synthesis and uses of Sulphomethoxazole and Nalidixic acid.
 - (c) Define NSAIDs and discuss the chemical classification with suitable examples.
 - (d) Discuss the synthesis and uses of Mefenamic acid and Diclofenac sodium.
 - (e) Discuss the mechanism of action of NSAIDs.
- 5 Answer any four of the following: (4×4=16)**
- (a) Discuss the mechanism of urine formation in a nephron.
 - (b) Give the chemical classification and uses of diuretics with suitable examples.
 - (c) Write a short note on High Ceiling Diuretics.
 - (d) Give the SAR and synthesis of Clofibrate.
 - (e) Give the chemical classification of anti-coagulants. Give the synthesis of warfarin sodium.