

Total No. of Questions : 6]

SEAT No. :

P3170

[Total No. of Pages : 2

[5245]-603

T.Y. B.Pharmacy (Semester - VI)

MEDICINAL CHEMISTRY - II

(2013 Pattern)

Time : 3 Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

SECTION - I

Q1) Classify oral anti-hyperglycemic agents with suitable examples and structures. Add a note on Sulfonylureas as anti-hyperglycemic agents. **[10]**

OR

Classify sedative and hypnotics with suitable examples and structures. Add a note on chemistry of barbiturates.

Q2) Solve any FIVE questions : **[5 × 3 = 15]**

- a) Give structure, IUPAC and synthesis of haloperidol.
- b) Classify anticonvulsant agents.
- c) Which compounds are used as MAO inhibitors in anti-depressant therapy and why?
- d) Comment on inhalational anesthetics.
- e) Discuss cannbinols as hallucinogens.
- f) Outline the synthesis of diazepam.
- g) What is Fenton reaction? Give its significance in Parkinson's disease.

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Q3) Solve any TWO questions : **[2 × 5 = 10]**

- a) Classify atypical antipsychotics with examples. Why are they termed as atypical?
- b) Discuss in detail the agents used in anti-migrane therapy.
- c) Explain important structural features and mode of action of local anesthetics.
- d) Discuss SAR of tricyclic antidepressant agents.

SECTION - II

Q4) Classify anxiolytics with suitable examples and structures. Discuss the SAR of benzodiazepines **[10]**

OR

Explain the role of phase I & phase II reactions in drug metabolism with suitable examples.

Q5) Solve any FIVE: **[5 × 3 = 15]**

- a) Outline the synthesis of phenytoin.
- b) Give the structures and IUPAC of Mepivacaine and Chlorprozine.
- c) Give the chemical categories of CNS stimulants with examples.
- d) Discuss radiopaque compounds as diagnostic agents.
- e) How cocaine played a role as lead molecule in development of local anesthetics?
- f) Outline the complete metabolic pathway for procaine.
- g) Why carbidopa is prescribed with levodopa in anti-parkinson's therapy?

Q6) Solve any TWO : **[2 × 5 = 10]**

- a) Enlist SSRIs. Give structure, IUPAC and synthesis of fluoxetine.
- b) Which are the drugs used in treatment of Alzheimer's disease? Discuss with chemistry and mode of action.
- c) Discuss phenothiazines as antipsychotics.
- d) With respect to drug discovery, discuss etiology of neurodegenerative disorders.

