

Total No. of Questions :6]

SEAT No. :

[Total No. of Pages :2

**P1459**

**[5049] - 603**

**T.Y.B. Pharmacy**

**(3. 6. 3.) MEDICINAL CHEMISTRY - II**

**(2013 Pattern) (Semester - VI)**

*Time : 3 Hours]*

*[Max. Marks :70*

*Instructions to the candidates:*

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

**SECTION - I**

**Q1)** Classify antipsychotic agents with suitable examples and structures. Add a note on phenothiazines. **[10]**

OR

Classify anti-depressants with suitable examples and structures. Add a note on SSRIs. **[10]**

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

- a) Give structure, IUPAC and synthesis of tolbutamide.
- b) Classify local anesthetic agents.
- c) What is Fenton reaction? Give its significance in Parkinson's disease.
- d) Comment on chemistry and modes of action of respiratory stimulants.
- e) Discuss cannabinoids as hallucinogens.
- f) Outline the synthesis of Amitriptyline.
- g) Briefly write about azaspirodecanediones as anti-anxiety.

***P.T.O.***

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

- a) Classify sedative - hypnotics with examples.
- b) Discuss chemistry and mode of action of sulfonylureas.
- c) Explain important structural features and mode of action of barbiturates.
- d) Discuss SAR of tricyclic antidepressant agents.

**SECTION - II**

**Q4) Explain the role of phase I & phase II reactions in drug metabolism with suitable examples.** **[10]**

OR

Explain in detail the etiology and agents used for treatment of Alzheimer's disease with chemistry and mode of actions. **[10]**

**Q5) Solve any FIVE:** **[5×3=15]**

- a) Outline the synthesis of thiopental sodium and give its IUPAC.
- b) Give the structures and IUPAC of metformin and sodium valproate.
- c) Outline the complete metabolic pathway for diazepam.
- d) Discuss radiopaque compounds as diagnostic agents.
- e) How cocaine played a role as lead molecule in development of local anesthetics.
- f) Give the chemical categories of CNS stimulants with examples.
- g) Comment on halogenated hydrocarbons as general anesthetics.

**Q6) Solve any TWO:** **[2×5=10]**

- a) Discuss the new classes of oral anti-hyperglycemic agents.
- b) Discuss in detail the agents used in anti-migraine therapy.
- c) Chemical changes in structure of benzodiazepines affect CNS activity. Discuss in detail.
- d) Write a note on dopamine conservers, replacers and agonists used in Parkinson's disease.

