

B.PHARMACY DEGREE COURSE (NON-SEMESTER EXAMINATIONS)
THIRD YEAR (Regulation 2009-2010)
PAPER II – MEDICINAL CHEMISTRY – I

Q.P. Code: 564262

Time: Three hours

Answer ALL questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain the following physiochemical parameters related to biological activity with example.
a) Ionization b) Hydrogen bonding c) Isosterism d) Redox potential.
2. a) Sketch the synthesis for (i) Methohexital sodium (ii) Halothane.
b) Give detailed account of Structure Activity Relationship of Benzodiazepine.
c) Define CNS stimulants and classify with example.

II. Write notes on:

(8 x 5 = 40)

1. Describe the synthesis and mechanism of action of Acetazolamide.
2. Classify Cholinergic receptor drugs with at-least one structure for each class.
3. Give the synthesis and mechanism of action of Piroxicam.
4. Describe in detail about application of Prodrug design.
5. Relate the structural features of catecholamine.
6. Sketch the synthesis and uses of Ephedrine and Atenolol.
7. Classify local anesthetics with at-least one structure for each class.
8. Explain the chemistry, synthesis and uses of Promethazine HCl.

III. Short answers on:

(10 x 2 = 20)

1. Draw the structure and medicinal uses of Hydromorphone HCl.
2. Give flow chart or equation for termination of Histamine action.
3. Sketch the structure and medicinal uses of Chlorpromazine HCl.
4. Give two examples for Phase-II reaction.
5. Outline the structure and medicinal uses of Phenacemide and Primidone.
6. Give at-least four points about SAR of Phenothiazine.
7. Draw the structures of Carbachol and Pyridostigmine.
8. Describe about the chemistry of Prostaglandins.
9. Describe the structure and chemistry of Nicotine with reference to heterocyclic ring.
10. Give two examples for anticonvulsants under oxazolidinone.
