Date 9/11/09
11 sthall-09-mat-G167
time 2.30 to 5.30

Final year B. pharm Sem VII oct 2009
pharmaceutical and medicinal chemistry

Con. 4790-09. DY-5126

(2 Hours) [Total Marks : 35

N.B. : (1) Question No. **1** is **compulsory**.
(2) Attempt any **four** questions out of the remaining **six** questions.
(3) **All** questions carry **equal** marks.

1. (a) Write the structure and chemical name of the following drugs :— 3
   (i) Procainamide
   (ii) Captopril
   (iii) Clonidine.
   (b) Write the structure and important therapeutic use of **each** of the following :— 4
   (i) Propafenone
   (ii) A direct-acting vasodilator that requires metabolic activation to produce its effect.
   (iii) A β_2-against containing resorcinol moiety.
   (iv) An adrenergic receptor antagonist containig quinazoline ring in its structure.

2. (a) Give the scheme of synthesis of the following drugs, mentioning the reagents used at each step. (any **two**) :— 6
   (i) Neostigmine
   (ii) Piperidolate
   (iii) Warfarin.
   (b) Give structure and nomenclature of one official degradation product of Nifedipine. 1

3. (a) Write short notes on any **two** of the following :— 6
   (i) Hyperlipidemia and Lipoproteins.
   (ii) Organic Nitrates.
   (iii) Alzheimers disease and drugs used in the treatment.
   (b) Give the structure and therapeutic use of a ganglionic blocking agent. 1

4. (a) What are cardiotonics ? How are they classified ? Discuss their mode and mechanism of action. 4
   (b) Discuss the SAR of Muscarinic agonists. 3

5. (a) Give an account of anticoagulants and discuss their mechanism of action. 4
   (b) Write a note on "Reversible choline esterase inhibitors". 3

6. (a) Discuss ACE inhibitors along with the structural requirements for potent activity. 4
   (b) Describe the SAR of β-phynylethylamine class of sympathomimetics. 3

7. (a) Give the biotransformation of the following drugs (any **two**) :— 6
   (i) Xylocaine
   (ii) Hydralazine
   (iii) Propranolol.
   (b) Write the name and structure of a potent competitive inhibitor of HMG-CoA reductase. 1