

P-503

Seat No. _____

Diploma in Pharmacy (Part - II) Examination

May/June – 2003

Pharmaceutical Chemistry : Paper - II

Time : Hours]

[Total Marks : 80

- Instructions :** (1) Attempt any **three** question from each section.
(2) Tie **each** section separately.

SECTION – I

- 1 (a) Write the structure of the following : (any **four**)
- (i) Pyrrole
 - (ii) Indole
 - (iii) Oxazole
 - (iv) Furan
 - (v) Thiazole
 - (vi) Pyrazine.
- (b) Write the formulae of the following groups : (any **six**)
- (i) Allyl –
 - (ii) Benzyl –
 - (iii) Cyano –
 - (iv) Propyl –
 - (v) Methoxy –
 - (vi) Phenyl –
 - (vii) Vinyl –
 - (viii) Acetamido –
 - (ix) Sulphamoyl –
- (c) Name the following groups : (any **six**)
- (i) OHC–
 - (ii) H₂NSO₂
 - (iii) CH₃CH₂CH₂CH₂ –
 - (iv) (CH₃CH₂)₂N
 - (v) CH₃O –
 - (vi) SH –
 - (vii) C₆H₅ –
 - (viii) C₆H₅CO –
 - (ix) NHCOCH₃.

- (d) Name one local anaesthetics each possessing the following chemical characteristics :
- (i) An alkaloid
 - (ii) An amide
 - (iii) An ester of p–amino benzoic acid.
- 2 Write short notes on any **three** of the following :
- (i) Anti depressant drugs
 - (ii) Vasodilators
 - (iii) Diuretics
 - (iv) Thyroid and Antithyroid drugs
 - (v) Coagulants and Anti–coagulants.
- 3 (a) Write properties and storage condition :
- (i) Cyclo propane
 - (ii) Paraldehyde
 - (iii) Tri chloro ethylene.
- (b) Explain the following terms and write drugs used for its treatment : (any **six**)
- (i) Bronchial asthma
 - (ii) Pernicious anaemia
 - (iii) Glossitis
 - (iv) Gout
 - (v) Vaso constriction
 - (vi) Pellagra
 - (vii) Carminative
 - (viii) Tuberculosis
 - (ix) Typhoid fever
 - (x) Inflammation.
- (c) Give a general account of hypnotics and sedatives.
- 4 (a) Answer the following : (any **six**)
- (i) Name the Vitamins which are derivative of pyridine.
 - (ii) Name the disinfectant belonging to quaternary ammonium compound.
 - (iii) Name a hypoglycaemic agent which is derivative of biguanides.
 - (iv) Name antirachitic vitamin which is a derivative of sterols.
 - (v) Name anti inflammatory agent which is having Pyrazolidine 3:5 dione ring.

- (vi) Name diagnostic agent used in liver function test.
- (vii) Name anti convulsant having hydantoin nucleus.
- (viii) Name antimalarial having 1, 3 diazine nucleus.
- (b) Write medicinal uses of the following drugs :
 - (i) Halothane
 - (ii) Glyceryl trinitrate
 - (iii) Metronidazole
 - (iv) Testosterone
 - (v) Phenytoin
 - (vi) Chlorpromazine
 - (vii) Chloro cresol.
- (c) Explain – Lipid – soluble vitamins.

5 Answer any **three** of the following :

- (a) What are antispasmodic and antiulcer drugs ?
- (b) Give an account of histamine antagonists.
- (c) Give an account of non steroidal anti inflammatory agents with suitable examples.
- (d) Give an account of different types of antihypertensive agents.

SECTION – II

6 Answer any **three** of the following :

- (a) What are broad spectrum antibiotics write basic structure, storage conditions and official forms of Penicillins.
- (b) What are the different classes of cardiovascular drugs.
- (c) Give the properties and storage condition of Neomycin and Griseofulvin.
- (d) Name the sulphonamides used in eye infections, urinary tract infection and for intestinal infection. Give properties and storage condition of sulphaguanidine and Dapsone.

7 (a) Write structural formula and medicinal uses of any **six** of the following :

- (i) Ethambutol
- (ii) Piperazine
- (iii) Diazepam
- (iv) Biperiden
- (v) Pethidine

- (vi) Thyroxine
 - (vii) Indo methacine
 - (viii) Phenformin.
- (b) What are the requirements of a satisfactory radiopaqu materials ? Give properties and use of Iodoxyl.
- 8 Write short notes on the following : (any **three**)
- (i) Water soluble vitamins
 - (ii) Anti malarial drugs
 - (iii) Narcotic antagonists
 - (iv) Anti-convulsant drugs
 - (v) Anti-amoebic drugs.
- 9 Answer any **five** of the followings :
- (i) Write an account of phenol and related substances used as disifectants and antiseptics.
 - (ii) How do you differentiate between local and general anesthetics.
 - (iii) How cholinergic drug differ from cholinesterase inhibitors.
 - (iv) State the uses, properties and official forms of Vitamin-K.
 - (v) Give the structure and properties of Lignocaine HCl. In what manner is it superior to procaine.
 - (vi) Give the properties and uses of organic dyes used as antiseptics.
 - (vii) What is the difference between anti-bacterial and anti-biotic ? Give the official preparation of a antibiotic drug of aminoglycosides class.
- 10 Answer any **four** of the following :
- (i) What are steroids ? Discuss the importance of estrogens.
 - (ii) What are hormones ? Give classification and explain female sex hormones.
 - (iii) Discuss insulin and insulin preparations.
 - (iv) Discuss the basic structure of tetracycline mention its properties, storage conditions and uses.
 - (v) What do you mean by tranquilizers ? What are the types of tranquilizers ?
 - (vi) Discuss antihypercholesterolemic drugs.