

Time: 3 Hrs

Marks: 80

- N. B. (1) All questions are compulsory**
(2) Figures to the right indicate full marks

- Q 1a. Answer the following 16
- (i) Discuss following terms i.e. 'pharmacodynamic' and 'pharmacokinetic'
 - (ii) Explain terms
 - 1) Tolerance
 - 2) Drug dependence
 - (iii) Describe drug treatment of glaucoma in short
 - (iv) Explain the term 'receptor' and classify with examples
 - (v) Specific beta 1 blockers are preferred over non specific beta 1 blockers in the treatment of hypertension. True or false and Justify
 - (vi) How disease status such as liver or kidney damage of a patient affects drug action
 - (vii) Biotransformation is process of detoxification-True or false with justification
- Q 1b. 4
- (i) Give mechanism of action of loop diuretics
 - (ii) Classify skeletal muscle relaxants
 - (iii) Enlist side effects of atropine
 - (iv) What is drug dependence?
- Q 2 (a) Answer **any two** of the following 8
- (i) Describe synthesis, storage, release, and metabolism of catecholamines
 - (ii) What are ganglion blocking agents? Compare and contrast between depolarizing and non-depolarizing agents.
 - (iii) Discuss in-detail pharmacological actions of adrenaline
- Q 2 (b) Answer **any one** of the following 4
- (i) Discuss factors affecting bioavailability of drug
 - (ii) Classify routes of administration and discuss advantages and disadvantages of topical route
- Q 3 (a) Answer **any two** of the following 8
- (i) Classify anti-anginal agents and add a note on pharmacotherapy of calcium channel blockers
 - (ii) Classify antiarrhythmic agents and discuss the role of sodium channel blockers in-detail
 - (iii) Classify antihyperlipidemic drugs. Write a note on statins
- Q 3 (b) Answer **any one** of the following 4
- (i) Describe mechanism of action of digitalis. Also state related clinical use and side effects
 - (ii) Write a note on vasodilators with examples & therapeutic use
- Q 4 (a) Answer **any two** of the following 8
- (i) Classify adrenergic receptors and discuss therapeutic uses of selective agonist and antagonist for each subtype of receptor
 - (ii) Classify and explain in-detail the therapeutic effects of parasympatholytics
 - (iii) Classify anticholinesterases and discuss related therapeutic use

- Q 4 (b) Answer **any one** of the following 4
- (i) Explain the mechanism of action of prazosin & related therapeutic uses
 - (ii) Discuss the therapeutic role of adrenaline in-detail
- Q 5 (a) Answer **any two** of the following 8
- (i) Describe enzyme-linked receptors in-detail
 - (ii) Explain the role of secondary messengers in GPC receptors.
 - (iii) Discuss physiology of ion channels with example
- Q 5 (b) Answer **any one** of the following 4
- (i) Discuss all routes of excretion with examples of a drug
 - (ii) Discuss phase I reaction with example
- Q 6 (a) Answer **any two** of the following 8
- (i) Write a note on thiazide diuretics
 - (ii) Discuss therapeutic uses and complication of diuretics
 - (iii) Describe role of carbonic anhydrase inhibitors and loop diuretic in the treatment of hypertension
- Q 6 (b) Answer **any one** of the following 4
- (i) Drug related factors affecting drug action?
 - (ii) Explain how body weight & gender affects drug action
