

(3 Hours)

(Total Marks : 80)

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

Q.1A) Answer the following :

16

- i) Define prodrug. Give one example
- ii) Define a) Partial agonist b) Therapeutic index
- iii) Define a). Apparent Volume of distribution; b) Clearance
- iv) Enlist centrally acting antihypertensive agents
- v) Explain the term placebo effect
- vi) Write the Mechanism of action of sodium Nitropruside.
- vii) Classify anti- arrhythmic drugs.
- viii) 'Salmeterol and ipratropium bromide are preferred in the treatment of asthma'. True or False and justify

Q.1B) Answer the following :

4

- i) Define Biotransformation.
- ii) Enlist the factors affecting absorption.
- iii) Classify adrenergic receptors.
- iv) Write name of drugs belongs to class of osmotic diuretics.

Q.2 A) Answer **any TWO** of the following

8

- i) Describe the classification of Sympathomimetic agents and discuss the pharmacodynamics of adrenaline on Heart and eye.
- ii) Classify anticholinesterases and discuss related therapeutic uses.
- iii) Classify skeletal muscle relaxants. Differentiate between depolarizing and non-depolarizing agents.

Q.2 B) Answer **any ONE** of the following :

4

- i) Classify different routes of administration. Write the advantages and disadvantages of oral route of administration.
- ii) Write a note on plasma protein binding capacity, pH, solubility, and ionized as factors affecting drug distribution with examples.

Q.3 A) Answer **any TWO** of the following :

8

- i) Classify antihypertensive drugs. Write a short note on Captopril.
- ii) Write a note on pharmacotherapy of calcium channel blockers
- iii) Classify anti-anginal drugs. Discuss pharmacotherapy of nitrates.

Q.3 B) Answer any ONE of the following :

4

- i) Classify antihyperlipidemic agents and write a note on pharmacotherapy of Statins.
- ii) Write a short note on Quinidine.

Q.4 A) Answer any TWO of the following :

8

- i) Classify parasympathomimetic agents and discuss specific therapeutic use.
- ii) Classify sympatholytics and discuss related the pharmacotherapy of alpha adrenergic blocking agent
- iii) Describe synthesis, storage, release, and metabolism of acetylcholine.

Q.4 B) Answer any ONE of the following :

4

- i) Discuss the clinical uses of Anticholinergic drugs
- ii) Discuss the pharmacotherapy of dantrolene

Q.5 A) Answer any TWO of the following :

8

- i) Discuss physiology of ion channels with examples
- ii) Enlist the different families of receptors and explain transducer mechanism of G-protein coupled receptors.
- iii) Write a short note on competitive and non competitive antagonism with examples

Q.5 B) Answer any ONE of the following :

4

- i) Discuss Phase II with example
- ii) Write a note on Phase I with example

Q.6 A) Answer any TWO of the following :

8

- i) Classify Diuretics. Compare and contrast thiazides and potassium sparing diuretics.
- ii) Write the mechanism of action of high ceiling diuretics with its uses and complications.
- iii) Elaborate on the role of sodium channel blockers in the management of cardiovascular disorders.

Q.6 B) Answer any ONE of the following :

4

- i) Enlist patient related factors modifying drug actions. Explain any two factors with example.
- ii) Write a short note on tolerance and drug dependence.