

[Time: 2½ Hours]

[Marks:70]

Please check whether you have got the right question paper.

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

1. (a) Answer the following 12
 - I. Define bioavailable and bioequivalence
 - II. Differentiate between potency and efficacy of a drug
 - III. What are the clinical uses of skeletal muscle relaxants?
 - IV. Classify muscarinic receptors along with their location
 - V. Carbonic anhydrase inhibitors are used as mild diuretics. Justify
 - VI. Give the mechanism of action of quinidine.
1. (b) 03
 - I. What do you mean by pharmacological antagonism? Give examples.
 - II. Differentiate between sympathetic and parasympathetic nervous system in terms of present neurotransmitters.
 - III. Give the pathogenesis of cardiac arrhythmia.
2. (a) Answer any two of the following 08
 - I. Classify parasympathomimetics and add note on their therapeutic uses.
 - II. Give the pharmacological action of Acetylcholine.
 - III. Write note on depolarizing and non-depolarizing ganglionic blockers.
- (b) Answer any one of the following 03
 - I. Explain the various phases of drug metabolism with example.
 - II. Define renal clearance, Volume of distribution and half life of drug
3. (a) Answer any two of the following 08
 - I. Classify antiarrhythmic agents and explain the role of calcium channel blockers.
 - II. Explain the role of diuretics in managements of hypertension
 - III. Explain various toxic effects of drug on different organs and systems.
- (b) Answer any one of the following 03
 - I. Give the pharmacotherapy of Angina pectoris
 - II. How pharmacokinetic factors affects action of drug?
4. (a) Answer any two of the following 08
 - I. Discuss atropine like substitutes in-detail.
 - II. Enlist the therapeutic uses of Noradrenaline and explain its mechanism of action.
 - III. What treatment will you prescribe to the patient suffering from cardiac arrhythmia if he/she is having asthma?

- (b) Answer any one of the following 03
- I. Classify nicotinic receptor antagonist
 - II. Explain the role of sympathomimetics in asthma

5. (a) Answer any two of the following 08
- I. Discuss various types of receptors and explain their functioning with examples.
 - II. Explain physiological and chemical antagonism with suitable examples.
 - III. Differentiate between competitive and non-competitive inhibition.

- (b) Answer any one of the following 03
- I. Classify routes of drug administration.
 - II. Drug administered via different routes will have same half life. Justify

6. (a) Answer any two of the following 08
- I. Write note on antihyperlipidemic drug
 - II. Give the classification of sodium channel blocker along with their uses.
 - III. Give the therapeutic uses of following drugs (any 4)
 - a) Succinly Co A
 - b) Physostigime
 - c) Quinidine
 - d) Spirinolactone
 - e) Diltiazem

- (b) Answer any one of the following 03
- I. Discuss the effect of protein binding capacity and related drug action.
 - II. Discuss patient related factors affecting drug action.
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