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# MANIPAL ACADEMY OF HIGHER EDUCATION

## SECOND MBBS DEGREE EXAMINATION – APRIL 2024

### SUBJECT: PHARMACOLOGY – PAPER I (ESSAY)

(OLD REGULATION - 2018-19 & PRIOR BATCH)

Wednesday, April 24, 2024

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

1. Enumerate five groups of drugs with examples used in the treatment of congestive heart failure. Explain the mechanism of action and mention two adverse effects of any one drug used for congestive heart failure.  
(5+3+2 = 10 marks)
2. Explain four factors modifying drug action with examples. Write two advantages and two disadvantages of fixed dose combination of drugs.  
(6+2+2 = 10 marks)
3. **Answer the following:**
  - 3A. Name an osmotic diuretic and explain its mechanism of action. Write two uses and two contraindications.
  - 3B. Explain four methods to prolong drug action with examples.
  - 3C. Enumerate four classes of anticholinergic drugs with one example for each.
  - 3D. Name four groups of drugs used in the treatment of glaucoma with one example for each. Explain the mechanism of action of any one of them.
  - 3E. Name four alpha blockers. Mention two uses and two adverse effects of alpha blockers.
  - 3F. Mention two cardioselective beta blockers. Explain two uses of beta blockers.
  - 3G. Name two inhalational corticosteroids. Explain the rationale for using inhalational corticosteroids in bronchial asthma. Write two adverse effects.
  - 3H. What is plasma protein binding? Write three clinical implications of plasma protein binding of a drug.
  - 3I. Explain the anti-hypertensive mechanism of thiazides. Mention two drugs that can be used in hypertensive emergencies and two drugs in pregnancy with hypertension.
  - 3J. Name four drugs used in the treatment of inflammatory bowel disease. Explain the mechanism of action of any one of them.
  - 3K. Mention four groups of drugs used in the treatment of acid peptic disease with one example for each.
  - 3L. Enumerate the ideal properties of a chelating agent. Name two chelating agents used for the treatment of iron poisoning.
  - 3M. Name two fibrinolytic agents. Explain the mechanism of action and mention two uses of fibrinolytics.
  - 3N. Name two parenteral iron preparations. Mention the indications for their use.
  - 3O. Write two advantages and two disadvantages of intravenous route of administration.  
(4 marks × 15 = 60 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

## SECOND MBBS DEGREE EXAMINATION – APRIL 2024

### SUBJECT: PHARMACOLOGY – PAPER II (ESSAY)

(OLD REGULATION - 2018-19 & PRIOR BATCH)

Saturday, April 27, 2024

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

**Answer ALL the questions.**

1. A 35-year-old male is brought to the emergency department by his family members for the treatment of convulsions which have been ongoing for the past half-an-hour. He is a known case of generalized tonic clonic seizures on medication but has been noncompliant as informed by the family members.
  - 1A. Explain the emergency management of the ongoing seizures.
  - 1B. Name four antiepileptics suitable for long term management of this case.
  - 1C. Explain the mechanism of action and list the adverse effects of any one.

(4+2+4 = 10 marks)
  
2. Classify penicillins with suitable examples. Explain their mechanism of action. Add a note on beta-lactamase inhibitors.

(5+3+2 = 10 marks)

**Answer the following:**

- 3A. List the measures to minimize hypothalamo-pituitary-adrenal axis suppression during the use of glucocorticoids.
- 3B. Name four systemic antifungal drugs. Explain the mechanism of action of clotrimazole.
- 3C. List four clinical uses of opioids. Explain why morphine is contraindicated in patients with head injury.
- 3D. Name two uterine stimulants and two uterine relaxants. Explain two clinical indications for use of uterine stimulants.
- 3E. Name four selective serotonin reuptake inhibitors. Mention four differences between these drugs and tricyclic antidepressants.
- 3F. Explain the rationale for combining metronidazole with diloxanide furoate in the treatment of intestinal amoebiasis. List four other clinical uses of metronidazole.
- 3G. Write briefly on preanaesthetic medication.
- 3H. Classify oral antidiabetic drugs with suitable examples.
- 3I. Explain four factors that influence the choice of an antimicrobial agent.
- 3J. Explain the mechanism of action of combined oral contraceptive pills. What are their adverse effects?

- 3K. Name four antiretroviral drugs belonging to different groups. Explain the mechanism of action of any one.
- 3L. What are the advantages of combining levodopa with carbidopa in the treatment of parkinsonism? Name the drug, with rationale, for the treatment of drug-induced parkinsonism.
- 3M. Write briefly on thyroid synthesis inhibitors.
- 3N. List the common properties of aminoglycosides.
- 3O. Name two benzodiazepine and two non-benzodiazepine hypnotics. Mention the advantages of benzodiazepines over barbiturates.

(4 marks × 15 = 60 marks)

