

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND MBBS DEGREE EXAMINATION – MAY 2018**  
**SUBJECT: PHARMACOLOGY – PAPER I (ESSAY)**

Thursday, May 10, 2018

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

☞ Answer ALL the questions.

1. Define 'bioavailability' and 'bioequivalence'. Explain six factors affecting bioavailability. Add a note on transdermal therapeutic system.

(2+6+2 = 10 marks)

2. Enumerate six groups of drugs with examples used in hypertension. Explain the mechanism of action and adverse effects of any two.

(6+2+2 = 10 marks)

3. Answer the following:

- ANS 3A. Explain four uses of atropine substitutes mentioning the preferred agent in each use.
- 3B. Describe the mechanism of action of heparin. What are the advantages of low molecular weight heparins over unfractionated heparin?
- GIT 3C. Enumerate different groups of drugs reducing gastric acid secretion with an example for each.
- 3D. Write briefly on inhalational agents used in bronchial asthma.
- ANS 3E. Classify sympathomimetics based on their therapeutic use with suitable examples.
- 3F. Name four 5-HT receptor agonists belonging to different groups. Mention one use for each.
- ANS 3G. Mention four differences between succinylcholine and pancuronium.
- G 3H. Explain the objectives of post marketing surveillance. ✓ 6
- 3I. Enumerate four centrally acting antitussives. Why their use is inappropriate in productive cough?
- 3J. Enumerate six chelating agents. Write the uses for any one.
- G 3K. Giving suitable examples explain the term 'Idiosyncrasy' and 'Iatrogenicity'.
- 3L. Explain the metabolic functions of cyanocobalamin and folic acid.
- GIT 3M. Write briefly on racecadotril.
- 3N. Enumerate four drugs from different groups used in the management of wide angle glaucoma.
- ANS Explain the mechanism of action of any two groups of agents.
- 3O. Enumerate two osmotic diuretics. Why they are contraindicated in pulmonary edema? Mention the diuretic preferred in pulmonary edema with rationale and route of administration.

(4 marks × 15 = 60 marks)



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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND MBBS DEGREE EXAMINATION – MAY 2018**

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

Friday, May 11, 2018

**K.M.C. LIBRARY**  
**MANGALORE**

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

☞ Answer ALL the questions.

1. Classify oral antidiabetic drugs with examples. Explain the mechanism of action with adverse effects of any two groups and outline the management of diabetic ketoacidosis.  
(3+3+2+2 = 10 marks)
  
2. Classify antitubercular drugs. Write the mechanism of action and salient features of first line anti TB drugs. Write the short course regimen for pulmonary TB.  
(2+6+2 = 10 marks)
  
3. Answer the following:
  - 3A. Giving an indication, explain the basis for the use of levodopa and carbidopa combination.
  - 3B. Explain any two indications and two contraindications for morphine.
  - 3C. Write briefly on zidovudine.
  - 3D. Write the mechanism of action and adverse effects of combined oral contraceptive pill.
  - 3E. Describe the adverse effects of chlorpromazine.
  - 3F. Explain the advantages of combined use of antimicrobial agents.
  - 3G. Write briefly on third generation cephalosporins.
  - 3H. Explain the toxicities of cytotoxic drugs and methods adopted to ameliorate them.
  - 3I. Explain the uses and adverse effects of chloroquine.
  - 3J. Write briefly on thyroid hormone synthesis inhibitors.
  - 3K. Write the uses and adverse effects of phenytoin sodium.
  - 3L. Mention the objectives of preanesthetic medication and how they are achieved.
  - 3M. Explain four adverse effects of prednisolone.
  - 3N. Explain epidural and infiltration anesthesia with the agents used.
  - 3O. Write the indications of azithromycin and its advantages over erythromycin.

(4 marks × 15 = 60 marks)

