

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**SECOND MBBS DEGREE EXAMINATION – DECEMBER 2022**  
**SUBJECT: PHARMACOLOGY – PAPER I (ESSAY)**  
(OLD REGULATION - 2018-19 & PRIOR BATCH)

Wednesday, December 14, 2022

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

- 1A. Define bioavailability. Explain any five factors influencing bioavailability.  
1B. Define first order and zero order kinetics with examples.

(1+5+4 = 10 marks)

2. A 65 yr old man, has had several attacks of suffocating chest pain which began during physical exertion and disappeared after he took rest during the past one month. Now he has come to the casualty with severe retrosternal pain radiating to the left arm and jaw. He has been diagnosed with acute attack of angina.

Classify antianginal drugs with suitable examples. Explain the mechanism of action, uses and adverse effects of any one.

(4+2+2+2 = 10 marks)

3. **Answer the following:**

- 3A. Explain the types of drug antagonism with examples.  
3B. Define idiosyncrasy and iatrogenic disease with examples.  
3C. Explain dose dependent actions of dopamine  
3D. Explain four uses of atropine substitutes.  
3E. Name four anticholinesterases and explain two uses of them  
3F. Explain four uses of adrenaline.  
3G. Name two fibrinolytic agents. Explain the mechanism of action, uses and adverse effects of any one.  
3H. Explain the mechanism of action, uses and adverse effects of warfarin.  
3I. Mention an indication and explain the basis for the use of the following drug combinations  
i) Hydrochlorothiazide and Spironolactone ii) Formoterol and Budesonide  
3J. Name two mast cell stabilizers, explain their mechanism in bronchial asthma and adverse effects.  
3K. Classify drugs used in peptic ulcer with suitable examples.  
3L. Explain FOUR indications of using prostaglandin analogues with suitable examples  
3M. Explain the mechanism of action and uses of thiazides.  
3N. Name one antiemetic for motion sickness and one for anticancer drug induced vomiting. Explain their mechanism of action.  
3O. Write briefly on Desferrioxamine.

(4 marks × 15 = 60 marks)



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**SECOND MBBS DEGREE EXAMINATION – DECEMBER 2022**

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

(OLD REGULATION - 2018-19 & PRIOR BATCH)

Friday, December 16, 2022

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

- ✍ **Answer ALL the questions.**
- ✍ **Illustrate your answers with neatly drawn and labeled diagram wherever necessary.**
- ✍ **DO NOT use colour pens except for drawing diagrams/flowcharts.**

- 1A. Explain three advantages of combining antimicrobial agents with a suitable example for each.
- 1B. Define superinfection with a suitable example. Add a note on measures to minimize superinfection.

(6+2+2 = 10 marks)

2. A patient with type 1 diabetes mellitus was brought to casualty with sudden onset of dyspnoea. Laboratory investigations revealed blood sugar level of 479 mg/dl and a positive urine ketone body test. A diagnosis of diabetic ketoacidosis was made, and the patient was admitted to the ICU.

- 2A. Explain the line of management in this patient.
- 2B. Enumerate four groups of oral antidiabetic drugs with an example each.

(6+4 = 10 marks)

3. **Answer the following:**

- 3A. Compare and contrast: Erythromycin and Azithromycin.
- 3B. Mention two benzodiazepines and explain three uses of any one.
- 3C. Explain the treatment of a patient diagnosed with drug sensitive tuberculosis.
- 3D. Enumerate four groups of drugs used in parkinsonism with a suitable example for each.
- 3E. What is hypothalamo-pituitary-adrenal (HPA) axis suppression? Enumerate the measures to minimize it.
- 3F. Explain the mechanism of action and mention the route of administration of radioactive iodine. Mention two advantages and disadvantages associated with use of radioactive iodine.
- 3G. Explain the uses and adverse effects of phenytoin.
- 3H. Explain two techniques of local anesthesia with an indication for each.
- 3I. Mention four antiretroviral drugs belonging to different groups. Write briefly on post exposure prophylaxis of HIV.

- 3J. Mention two drugs used in urinary tract infection. Explain the mechanism of action and adverse effects of any one.
- 3K. Name two selective serotonin reuptake inhibitors. Enumerate their advantages over tricyclic antidepressants.
- 3L. Outline the management of methanol poisoning.
- 3M. Explain the treatment regimen for uncomplicated falciparum malaria. Mention two drugs that can be used for chemoprophylaxis in malaria.
- 3N. Mention two regimens used in emergency contraception and explain the mechanism of action of combined contraceptive pill.
- 3O. State the advantages and disadvantages of halothane as a general anesthetic.

(4 marks × 15 = 60 marks)

