

Batch 46

Exam Date & Time: 08-Apr-2022 (10:00 AM - 12:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

MELAKA MANIPAL MEDICAL COLLEGE  
(MANIPAL CAMPUS) MBBS PHASE - I STAGE -  
II DEGREE EXAMINATION - APRIL 2022  
SUBJECT: PHARMACOLOGY - PART - I (MCQ)  
Friday, April 8, 2022

### Pharmacology [M2PHA] - Essay

- 1A. Explain the term 'competitive antagonism' with a suitable example.  
1B. Mention two advantages and two disadvantages of transdermal route of drug administration.  
(3+2 = 5 marks)
- 2A. Enumerate two NSAIDs and explain the mechanism of action of any one of them.  
2B. List four pharmacological actions of morphine.  
(3 + 2 = 5 marks)
- 3A. Explain the antiamoebic action of metronidazole and list its two adverse effects.  
3B. List two therapeutic uses and two adverse effects of amphotericin B.  
(3 + 2 = 5 marks)
- 4A. Enumerate two 3<sup>rd</sup> generation cephalosporins and explain their mechanism of action.  
4B. List four general properties of aminoglycosides.  
(3 + 2 = 5 marks)
- 5A. Mention two drugs belonging to different groups used in the treatment of bronchial asthma and explain the mechanism of action of any one.  
5B. Explain the antimanic action of lithium.  
(3 + 2 = 5 marks)
- 6A. Enumerate two antipsychotic agents and mention four advantages of atypical antipsychotics over typical antipsychotics.  
6B. Explain the rationale for the use of ethosuximide in the treatment of absence seizures.  
(3 + 2 = 5 marks)
- 7A. A 65-year-old male developed difficulty in breathing due to pulmonary edema. You diagnosed his condition as acute left ventricular failure and started therapy with diuretic X for rapid relief of symptoms along with other drugs. He recovered after a few days and while discharging you prescribed him drug Y to retard the remodelling of heart.  
i) Identify drug X and explain how it relieves the above symptoms?  
ii) Identify drug Y and list its two adverse effects.
- 7B. Enumerate two calcium channel blockers and mention their two uses and two adverse effects.  
(4 + 3 = 7 marks)

8. Enumerate two groups of drugs with an example for each used to reduce acid secretion in the stomach. Explain the mechanism of action of any one of them. List two drugs used for *H. pylori* infection.

(5 marks)

9A. Mention four therapeutic uses of glucocorticoids and list their two contraindications.

9B. List two therapeutic uses and two adverse effects of thiazide diuretics.

(3 + 2 = 5 marks)

10A. List two skeletal muscle relaxants and explain the mechanism of action of any one of them.

10B. Enumerate two antiplatelet drugs and list their two therapeutic uses.

(3+2 = 5 marks)

11A. A 50-year-old obese male patient comes to your out-patient department and complains of frequent urination, increased thirst and hunger. On examination, his body weight is 90 kg and casual (random) blood glucose is 220 mg/dl (12.2 mmol/l) and FBS is 170 mg/dl (9.4 mmol/l). Select a group of drugs for the treatment of diabetes in this case (Step 4 of P-drug selection + scores table + summary) by comparing different groups following the principles of P-drug selection.

Table 1: Cost list of drugs

Drug	Cost per tab/cap (INR)	Drug	Cost per tab/cap (INR)
Glibenclamide	0.4 – 0.8	Miglitol	9 – 14
Gliclazide	1.4 – 7	Metformin	0.6 – 1.5
Glimepiride	1 – 6	Repaglinide	4 – 6
Glipizide	0.5 – 1.2	Nateglinide	4 – 11
Tolbutamide	0.6 – 0.7	Pioglitazone	2 – 9
Acarbose	4 – 8		

11B. List two insulin preparations and mention two characteristic features of any one insulin preparation.

(6 + 2 = 8 marks)