

## Question Paper

Exam Date & Time: 07-Sep-2019 (10:00 AM - 12:30 PM)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)**  
**MBBS PHASE - I STAGE - II DEGREE EXAMINATION - SEPTEMBER 2019**  
**Saturday, September 07, 2019**  
**Pharmacology [M2PHA]**

**PHARMACOLOGY - PART - II(ESSAY)**

**Section Duration: 120 mins**

**Max. marks : 60**

**Answer all the questions**

**Draw diagrams wherever appropriate**

1. Describe the following terms with suitable examples:
  - 1A. First pass metabolism
  - 1B. Redistribution

(2x2 = 4 marks)
2. Describe the antiepileptic action of sodium valproate.

(2 marks)
3. List two atypical antipsychotics and mention their two advantages over typical antipsychotics.

(2 marks)
4. Describe the antimanic action of lithium.

(2 marks)
5. Describe first dose phenomenon with suitable example.

(2 marks)
6. List two reversible anticholinesterases and mention their two therapeutic uses.

(2 marks)
7. Describe the terms 'Chemoprophylaxis' and 'Pharmacogenetics' with suitable examples.

(4 marks)
8. A 35 year old lady received an injection of a drug "X" for the treatment of syphilis. Within few minutes of injection, the patient developed pruritus, flushing, breathing difficulty and became unconscious. On examination her BP was 60/40 mmHg. Immediately the attending physician injected drug "Y" following which the patient showed dramatic improvement.
  - 8A. Identify drug X and drug Y.
  - 8B. Explain the mechanism of action of drug X.
  - 8C. Identify the complication and mention a measure that could have been taken to avoid this complication.

(1+2+1 = 4 marks)
9. List two parenteral iron preparations and mention two indications of parenteral iron therapy.

(2 marks)
10. List two low molecular weight heparins and explain their mechanism of action. List their two advantages over heparin.

(4 marks)

11. Describe the antiasthmatic action of salbutamol. (2 marks)
12. Describe the antihypertensive action of enalapril and list its two adverse effects. (3 marks)
13. List three classes of drugs with an example for each used in chronic prophylaxis of angina. (3 marks)
14. Explain the pharmacological basis for the use of frusemide in acute pulmonary edema. (2 marks)
15. Mention a drug used for chronic gout and describe its mechanism of action. (2 marks)
16. List two uses and two contraindications of morphine. (2 marks)
17. List two NSAIDs each used for patent ductus arteriosus and dysmenorrhea. (2 marks)
18. List three groups of drugs with an example for each used in peptic ulcer. (3 marks)
19. Explain the immunosuppressant action of glucocorticoids and list their two therapeutic uses based on this action. (3 marks)
20. Mention one each estrogen and progestin preparation used in a combined hormonal contraceptive pill. (1 mark)
21. Describe the prokinetic action of metoclopramide and list its two therapeutic uses. (3 marks)
22. A 50 year old male patient with irregular eating habits comes to your clinic with symptoms like frequent urination, increased thirst and hunger. His random blood glucose is 250 mg/dl (13.88 mmol/l) and FBS is 140 mg/dl (7.78 mmol/l).  
Select a group of drugs for the treatment of diabetes in a similar case (only step 4 of P-drug selection + scores + summary) by comparing different groups following the principles of P- drug selection.

Drug	Cost per tab/cap (in Rs.)	Drug	Cost per tab/cap (in Rs.)
Glibenclamide	0.4 -0.8	Repaglinide	4 - 6
Gliclazide	1.4 -7	Nateglinide	4 - 11
Glimepiride	1 - 6	Pioglitazone	2 - 9
Glipizide	0.5 - 1.2	Rosiglitazone	3 - 10
Tolbutamide	0.6 - 0.7	Acarbose	4 - 8
Metformin	0.6 - 1.5	Miglitol	9 - 14

(6 marks)

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