

MANIPAL ACADEMY OF HIGHER EDUCATION

MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)

MBBS PHASE - I STAGE - II DEGREE EXAMINATION - APRIL 2021

SUBJECT: PHARMACOLOGY - PART - II (ESSAY)

Friday, April 16, 2021

Time : 10.30 a.m.- 12.30 P.m.

Max. Marks : 60

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- ✓ **Answer all the questions**
 - ✓ **Draw diagrams wherever appropriate**

- 1A. Explain how 'extremes of age' modify drug action with suitable examples.**
- 1B. Explain the term 'redistribution' with an example.
(3+2 = 5 marks)**
- 2A. List two advantages and two disadvantages of intramuscular route of drug administration.**
- 2B. List two uses and two contraindications of morphine. Mention two pure opioid antagonists.
(2+3 = 5 marks)**
- 3A. Describe the term 'chemoprophylaxis' with a suitable example.**
- 3B. What is 'post-antibiotic effect'? Describe its clinical significance with an example.
(2+3 = 5 marks)**

4A. Mention two first line antitubercular drugs and explain the mechanism of action of any one of them.

4B. Mention two therapeutic uses of ceftriaxone with the causative organism involved.

(3+2 = 5 marks)

5A. A 69-year-old woman had been suffering from Parkinson's disease for past 7 years. Her disease is now controlled with a FDC of two drugs.

Name the drugs present in the FDC. Explain the basis for combining these two drugs. List two other drugs that can be used to treat Parkinson's disease.

5B. List two drugs preferred in treatment of grand-mal epilepsy. Explain the mechanism of action of any one of them.

(4+3 = 7 marks)

6A. Explain the pharmacological basis for the use of heparin in deep vein thrombosis.

6B. List two drugs used in peptic ulcer and describe the mechanism of action of any one of them.

(2+3 = 5 marks)

7A. List two drugs used to treat productive cough. Explain the mechanism of action of any one of them.

7B. Explain the term 'second gas effect' with a suitable example.

(3+2 = 5 marks)

8A. List two techniques of local anesthesia and mention one drug used in each technique.

8B. Name the adrenergic receptors present in the heart and blood vessels. List the pharmacological actions of adrenaline on the heart and blood vessels.

(2+3 = 5 marks)

9A. List two anticholinesterases and mention their two therapeutic uses.

9B. Mention three benefits and three risks associated with hormone replacement therapy.

(2+3 = 5 marks)

10A. Describe how glucocorticoids produce anti-inflammatory action and mention their two metabolic adverse effects.

10B. List two each short-acting and long-acting insulin preparations.

(3+2 = 5 marks)

11A. A 60-year-old female with a history of asthma comes to your clinic for regular check-up. On examination, you notice that her BP is elevated to 155/95 mm Hg. You ask her to relax and check her BP again. BP continues to read as 155/95 mm Hg.

Select a group of drugs for the treatment of hypertension 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 antihypertensives.

Drugs	Cost in Rs. (per tablet)	Drugs	Cost in Rs. (per tablet)
Tab. ramipril	2.10-9.70	Tab. metoprolol	1.00-4.00
Tab. enalapril	0.90- 3.20	Tab. verapamil	1.20-1.50
Tab. lisinopril	2.50- 4.00	Tab. nifedipine	4.00-8.00
Tab. losartan	0.90-3.10	Tab. amlodipine	1.40-6.50
Tab. candesartan	3.50- 4.80	Tab. nimodipine	5.00-9.00
Tab. irbesartan	3.50-4.80	Tab. felodipine	3.90-4.60
Tab. telmisartan	4.00- 6.00	Tab. hydrochlorothiazide	0.60-1.20
Tab. propranolol	0.90-2.40	Tab. chlorthalidone	2.30-3.00
Tab. bisoprolol	1.70- 4.00	Tab. indapamide	3.90-7.70
Tab. atenolol	0.80-1.90		

11B. Explain the mechanism of action of furosemide.

(6+2 = 8 marks)