

SS/MBBS-II/PHAR-II/12-24**2024****(December)****PHARMACOLOGY****Paper-II****Full Marks: 90****Time: 2 hours 50 minutes****The figures in the margin indicate full marks for the questions****Answer all questions**

Illustrate your answers with suitable diagrams and flowcharts wherever necessary.

Write the question number correctly.

Answer the questions in order.

1. Classify antiparkinsonian drugs. Explain the mechanism of action of levodopa in parkinsonism. Explain the drug interaction between levodopa and pyridoxine. (5+3+2=10)

2. Classify non-steroidal anti-inflammatory drugs. Describe in detail the mechanism of action, uses, and adverse effects of aspirin. (3+3+2+2=10)

3. Write short notes on:

(5×4=20)

(a) Mechanism of action of benzodiazepines

(b) Metronidazole

(c) Pharmacotherapy of diabetic ketoacidosis

(d) Nucleotide reverse transcriptase inhibitors (NRTIs)

4. Classify fluoroquinolones. Explain the mechanism of action of ciprofloxacin. What are the side effects and uses of ciprofloxacin? (4+2+2+2=10)

5. Explain why: (2×5=10)

- (a) Probenecid is used with penicillin.
- (b) Clavulanic acid is called a suicide inhibitor.
- (c) Glucocorticoids should not be withdrawn abruptly after prolonged use.
- (d) Tamoxifen is called a selective oestrogen receptor modulator.
- (e) Propranolol is used in thyrotoxicosis.

6. A middle-aged male factory worker reports to the hospital with cough and expectoration, mild chest pain, weakness, and fatigue with low-grade fever for the last one month. He gives a history of having suffered from pulmonary tuberculosis about a year back and stopped taking the prescribed drug after two months when he felt better. Investigations now showed sputum positive for AFB and a cavitory lesion in the right middle lobe and fibrotic changes in the upper lobe. (2+4+4=10)

- (a) What is the diagnosis?
- (b) What regimen of antitubercular drugs must he have received earlier?
- (c) What should be the regimen of antitubercular drugs for this patient now?

7. Distinguish between: (3×5=15)

- (a) Passive immunization and Active immunization
- (b) Phenytoin and Fosphenytoin
- (c) Clotrimazole and Fluconazole
- (d) Procaine and Lignocaine
- (e) Opioids and Opiates

8. Write on the principles of bioethics. (5)

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