

The West Bengal University of Health Sciences
MBBS 2nd Professional Examination (New Regulation) May 2022

Subject: Pharmacology
Paper: I

Full Marks: 100
Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 50 year old male patient attended Medicine OPD having cirrhosis of liver with oedema. Thiiazide and loop diuretics failed to control oedma. 3+3+2+4+3
 - i) Explain why these two diuretics failed to respond.
 - ii) Which diuretic is effective in this case and why ?
 - iii) Why loop diuretics are called high ceiling diuretics ?
 - iv) Describe blood electrolyte profile following thiazide therapy.
 - v) Can osmotic diuretics be effective in this patient ?

- b) A middle aged person climbing stairs suddenly felt severe compressing retrosternal pain radiating to the left shoulder and along flexor surface of left arm, is brought to the emergency. 3+3+3+3+3
 - i) Name two drugs that can be given sublingually in this condition.
 - ii) How much of these drugs are to be given till he is free of pain?
 - iii) Why these drugs are given sublingually and not orally?
 - iv) What are the other drugs which relieve the patient of this condition.
 - v) Discuss the drugs which are used for prophylaxis of myocardial infarction.

2. a) Enumerate the iron preparations used in iron deficiency anemia and mention their adverse drug reactions. 10
- b) Classify the anticholinesterase agents. Mention their mechanism of action in myasthenia gravis. Outline the treatment protocol of anticholinesterase poisoning. 4+3+3
- c) Enumerate drugs used for glaucoma. Write down pharmacological basic of therapy of those drugs. Why is the topical route preferred for ocular drug administration ? 3+5+2

3. Write short notes on following: 2 x 5
 - a) Four principles of bioethics and their importance in treating a patient.
 - b) Describe the factors modifying absorption of a drug.

4. Explain the following statements: 5 x 4
 - a) Bioavailability of a drug is dependent on several factors.
 - b) Clinical trials are necessary for approval of use a drug in the community.
 - c) Desferrioxamine to remove excess iron in the body of thalassemia patient.
 - d) Tropical eye and skin preparations of steroids are preferred over systemic preparations.
 - e) Beta blockers are useful in several cardiovascular diseases.

5. Choose the correct option for each of the following:

1. Indicate the drug belonging to antagonists of heparin -

- a) Protamine sulphate
- b) Dicumarol
- c) Dalteparin d) Aspirin

2. Alpha-methyldopa is used most commonly in :

- a) Pregnancy induced hypertension
- b) Renovascular hypertension
- c) First line agent in hypertension d) Refractory hypertension

3. Substance having affinity but no intrinsic activity to receptor is

- a) Agonist
- b) Partial agonist
- c) Antagonist d) Physiological antagonist

4. Which of the following secretion is not stimulated by acetylcholine -

- a) Tears
- b) Bile
- c) Pancreatic juice d) Sweat

5. Diuretic used to decrease urinary calcium excretion in a patient having kidney stone

- a) Torsemide
- b) Hydrochlorothiazide
- c) Spironolactone d) Mannitol

6. Which one of the following drugs can be given orally for treatment of scabies

- a) Ivermectin
- b) Benzyl benzoate
- c) Sulfur d) Permethrin

7. In carbamate poisoning all the following should be administered except

- a) Atropine
- b) Artificial respiration
- c) Gastric lavage d) Oximes

8. Plasma expanders are used in the following conditions except -

- a) Congestive heart failure
- b) Extensive burns
- c) Mutilating injuries d) Endotoxin shock

9. Plasma level of vitamin A may be significantly affected by -

- a) Vitamin D
- b) Oral contraceptives
- c) Cephalosporin d) Aspirin

10. Which of these is not a cardiotonic

- a) Amrinone
- b) Piroximone
- c) Adrenaline d) Digoxin