



03/22

**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 relive 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.

P.T.O

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

10 x 1

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