

**MBBS 2nd PROFESSIONAL EXAMINATION, 2022****PHARMACOLOGY****Paper II****Time Allowed: Three Hours****Maximum Marks- 100**

Note: Attempt all questions in serial order. Answer Section-A and Section-B in separate answer books. All parts of a question should be answered together. Illustrate your answer with suitable diagram where required. Figures in parenthesis indicate marks allotted to a question.

Section-A 29

- Q1.** Classify antianginal drugs. Write mechanism of action, uses and adverse effects of nitrates. (20) 12
- Q2.** Write briefly on: (4x5)
- a) Pharmacotherapy of hypertensive emergency 3
 - b) Thiazide diuretics 3
 - c) Parenteral Iron 2
 - d) Low molecular weight Heparin 2
- Q3.** Multiple Choice Questions: (10x1)
1. **Thiazide diuretics and furosemide have directionally opposite effect on the net renal excretion of the following substance:**
 - a) Uric acid
 - b) Calcium
 - c) Magnesium
 - d) Bicarbonate
 2. **Use of potassium sparing diuretics in patients receiving the following drug needs close monitoring:**
 - a) Furosemide
 - b) Hydrochlorothiazide
 - c) Captopril
 - d) Verapamil
 3. **A patient presents to the emergency department with an extreme headache. After a thorough workup, the attending physician concludes that the pain is due to increased intracranial pressure. Which diuretic would work best to reduce this pressure?**
 - a) Acetazolamide.
 - b) Indapamide.
 - c) Furosemide.
 - d) Mannitol.
 4. **Which of the following drug reduces blood pressure primarily by directly decreasing heart rate alone:**
 - a) Propranolol
 - b) Prazosin
 - c) Alpha methyl dopa
 - d) Nitroprusside sodium
 5. **A 50 yrs old male presents with malignant hypertension. The drug of choice is:**
 - a) Sodium nitroprusside
 - b) Sublingual nifedipine
 - c) Furosemide
 - d) Enalapril



6. A woman in the 28th week of pregnancy has developed pregnancy induced hypertension with a blood pressure reading of 150/100 mm Hg. Select the most appropriate antihypertensive drug for her:
- Furosemide
 - Methyldopa
 - Propranolol
 - Captopril
7. GpIIb/IIIa receptor antagonist is
- Clopidogrel
 - Abciximab
 - Tranexamic acid
 - Ticlopidine
8. Apixaban is a new drug that acts by
- Inhibiting TNF alpha
 - Inhibiting coagulation factor Xa
 - Inhibiting platelet aggregation
 - Activating plasminogen
9. Aspirin prolongs bleeding by inhibiting the synthesis of which of the following?
- Adenosine receptors
 - Cyclic AMP
 - Prostacyclin
 - Thromboxane A2
10. A patient is diagnosed to be having iron deficiency anemia. The agent that can be used to improve the absorption of iron is:
- Antacids
 - Tetracyclines
 - Phosphates
 - Ascorbic acid

Section-B

- Q1. Classify antimalarial drugs. Discuss the pharmacotherapy of Plasmodium vivax as well as Plasmodium Falciparum Malaria. (20)
- Q2. Write short notes on: (4x5)
- Ulcer protective drugs 2
 - Remdesivir 2
 - 5HT₂ receptor antagonists 2
 - Aminoglycosides 2
- Q3. Multiple Choice Questions: (10x1) 5
- A person is being treated for Human Immunodeficiency Virus-1. He developed hypertriglyceridemia and hypercholesterolemia. Most likely drug implicated for these adverse effects is:
 - Ritonavir
 - Raltegravir
 - Didanosine
 - Efavirenz.
 - In an accidental needle stick, an unknown quantity of blood from an AIDS patient is injected into a nurse. The most recent laboratory report on the AIDS patient shows a CD4 count of 20/uL and a viral RNA load of greater than 10 copies/mL. The most appropriate course of action regarding treatment of the nurse is to:
 - Monitor the nurse's blood to determine whether HIV transmission has occurred
 - Treat with full doses of zidovudine for 2 weeks
 - Add acyclovir to the 4-weeks zidovudine regimen
 - Administer zidovudine with lamivudine for 4 weeks

3. Select the antimetabolite which is toxic to Leishmania but NOT to mammalian cells:
 - a) Allopurinol
 - b) Cytarabine
 - c) 6-Mercaptopurine
 - d) 6-Thioguanine
4. The following helminthic disease can be treated by albendazole but NOT by mebendazole:
 - a) Hookworm infestation
 - b) Threadworm infestation
 - c) Trichuriasis
 - d) Neurocysticercosis
5. Hemorrhagic cystitis is caused by:
 - a) Cyclophosphamide
 - b) 6 Mercaptopurine
 - c) 5 Fluorouracil
 - d) Busulfan
6. Methicillin resistant staphylococci do not respond to beta lactam antibiotics because:
 - a) They produce a beta lactamase which destroys methicillin and related drugs
 - b) They elaborate an amidase which destroys methicillin and related drugs
 - c) They have acquired penicillin binding protein which has low affinity for beta lactam antibiotics
 - d) They are less permeable to beta lactam antibiotics
7. Benzathine penicillin injected once every 4 weeks for 5 years or more is the drug of choice for:
 - a) Agranulocytosis patients
 - b) Prophylaxis of bacterial endocarditis in patients with valvular defects
 - c) Prophylaxis of rheumatic fever
 - d) Treatment of anthrax
8. Antacids administered concurrently reduce efficacy of the following antipeptic ulcer drug.
 - a) Cimetidine
 - b) Omeprazole
 - c) Sucralfate
 - d) Pirenzepine
9. The following laxative lowers blood ammonia level in hepatic encephalopathy.
 - a) Bisacodyl
 - b) Liquid paraffin
 - c) Lactulose
 - d) Magnesium sulfate
10. A 19-year-old woman with recurrent sinusitis has been treated with different antibiotics on several occasions. During the course of one such treatment she developed a severe diarrhea and was hospitalized. Sigmoidoscopy revealed colitis, and pseudomembranes, were confirmed histologically. Which of the following drugs, administered orally, is most likely to be effective in the treatment of colitis due to C difficile?
 - a) Ampicillin
 - b) Cefazolin
 - c) Clindamycin
 - d) Metronidazole
