

Instructions:

- All questions are compulsory
- Draw diagrams wherever necessary
- Answers of Questions and Sub-questions must be written strictly according to serial order of question paper.
- MCQ has to be answered in theory answer book
- Please write MCQ answer neatly and in serial order with black or blue pen in brackets; for example: - 1. (a) 2. (c)
- MCQ has to be answered only once, any kind of repetition or cutting or erasing or whitener will be considered as malpractice, such answers will not be counted in marks and action will be taken according to UFM rules of university.
- Subjective answer should be answered in up to 30 words per marks. For example, if a question having 2 marks should answered in up to 60 marks.

Q1. Total MCQs: 10

10 x 1 = 10

| | | | |
|--|----------------------------|---|--|
| 1. Which of the following is determined by half-life of a drug? | | | |
| (a) Steady state plasma concentration | (b) Plasma protein binding | (c) Bioequivalence | (d) Bioavailability |
| 2. The study of variation in drug response as per biological rhythm and timing is known as | | | |
| (a) Reverse pharmacology | (b) Pharmacovigilance | (c) Chrono pharmacology | (d) Pharmacometrics |
| 3. All except one are centrally acting skeletal muscle relaxants | | | |
| (a) Baclofen | (b) Tizanidine | (c) Benzodiazepine | (d) Dantrolene |
| 4. Prostaglandin useful for the prevention of duodenal ulcer is: | | | |
| (a) Dinoprost | (b) Misoprostol | (c) Alprostadil | (d) Carboprost |
| 5. All are contraindications to beta-blockers except | | | |
| (a) Severe bradycardia | (b) Heart block | (c) Dissecting aneurysm of aorta | (d) Peripheral vascular disease |
| 6. Which of the following is NOT an adverse effect of heparin? | | | |
| (a) Bleeding | (b) Thrombocytopenia | (c) Hypokalemia | (d) Osteoporosis |
| 7. In all of the following phases of clinical trial ethical clearance is required except | | | |
| (a) Phase I | (b) Phase II | (c) Phase III | (d) Phase IV |
| 8. Mechanism of action of Amiloride is inhibition of | | | |
| (a) Na ⁺ K ⁺ 2Cl ⁻ cotransport | (b) Aldosterone receptor | (c) Na ⁺ Cl ⁻ symport | (d) Renal epithelial Na ⁺ channel |
| 9. Antithrombotic includes all except | | | |
| (a) Urokinase | (b) Abciximab | (c) Dipyridamole | (d) Aspirin |
| 10. Which drug is useful in hepatic encephalopathy | | | |
| (a) Magnesium sulphate | (b) lactulose | (c) bisacodyl | (d) alvimopan |

- a. A 60-year-old male is a retiree and was admitted to the hospital. He is 100kg at a height of 180cm so his calculated body mass index (BMI) was 30.9 indicating that he was overweight. When admitted, known case of heart failure for 3 years ago and he had also diagnosed with hypertension for 5 years. Patient was complained of shortness of breath for 2 weeks and was worsening on the day of admission. Besides, he also experienced orthopnea, fatigue, paroxysmal nocturnal dyspnea and leg swelling up to his thigh. He was admitted to the hospital for to the same problem last year. He smokes 2-3 cigarettes a day also drinks occasionally.
- What are the various pharmacological agents used in chronic Heart failure?
 - What are the adverse effects associated with Digitalis and factors that may increase its toxicity?
 - How do you treat acute heart failure?
 - Explain vasodilators used in congestive heart failure.
- b. A 36-year-old male came to the ophthalmic emergency department with Complaints of severe headache, right eye pain and redness, blurred vision and colored halos for 1-2 days. On a tonometric examination the patient was having intraocular pressure of 52mm of Hg, the diagnosis of angle closure Glaucoma was made.
- Classify the drugs used for the management of glaucoma.
 - Enumerate the mechanism of action and adverse effects seen with Prostaglandins used for treatment of glaucoma
 - Elaborate the role of beta blockers in treatment of glaucoma
 - Management of acute angle closure glaucoma.

Q3. Brief Answer Questions

6 x 05 = 30

- Write adverse effects and contraindications of Heparin therapy.
- Management of Organophosphorus poisoning.
- Compare and Contrast Selective and non-selective beta blockers.
- High ceiling diuretics and its clinical indications.
- State the importance of Health care as a right.
- Differentiate between competitive and noncompetitive enzyme inhibition

Q4. Short Answer Questions

10 x 2 = 20

- State the Names of any two nasal decongestants.
- Define Prodrug. State two examples of the same
- Write two drugs that can cause pulmonary fibrosis.
- State the reason of combining Thiazide Diuretics along With Spironolactone.
- Write two drugs used for chemotherapy induced vomiting
- Why coadministration of sildenafil and nitrates should be avoided?
- Why mixtures of aluminum and magnesium salts usually co-formulated as antacids?
- Four examples of drugs having narrow therapeutic window.
- Why lignocaine is combined with adrenaline during anesthetic procedures?
- Why sudden withdrawal of beta blocker is not done in a hypertensive patient?