

**Madhya Pradesh Medical Science University,
Jabalpur**
**MBBS Second Professional Examination April-
2024**
Subject- Pharmacology
Paper-I (new scheme)

Time: 3:00 Hours

Maximum Marks :100

Instructions:

- a) All questions are compulsory
- b) Draw diagrams wherever necessary
- c) Answers of Questions and Sub-questions must be written strictly according to serial order of question paper.
- d) MCQ has to be answered in theory answer book
- e) Please write MCQ answer neatly and in serial order with black or blue pen in brackets; for example: - 1. (a) 2. (c)
- f) 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.
- g) 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

1) For which of the following drugs a warning is written "To be sold by retail on the prescription of a Registered Medical Practitioner only"? $10 \times 1 = 10$

- (a) Schedule H (b) Schedule X (c) Schedule Y (d) Schedule J

2) Essential medicines are those medicines:

- (a) That are needed to treat emergency conditions
(b) That are needed to treat serious diseases
(c) That satisfy the priority health care needs of the population
(d) That are introduced recently into the market

3) Which of the following agent is beneficial in NSAID induced gastric ulcer?

- (a) PGE1 agonist (b) PGE2 agonist (c) PGD2 agonist
(d) PGF2a agonist

4) The success of oral rehydration therapy of diarrhea, depends upon which of the following process in the intestinal mucosa?

- (a) Na^+ absorption by Na^+ (b) Glucose coupled Na^+ absorption
(c) Bicarbonate coupled Na^+ absorption (d) Passive sodium diffusion secondary to nutrient absorption

5) The most important action of beta-blockers in glaucoma is which of the following:

- (a) Membrane stabilizing effect (b) Retinal neuron ~~protecting effect~~
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- (c) Decrease production of aqueous humor (d) Pupillary constriction
- 6) A 24-years-old farm worker is rushed to emergency department after an accidental exposure to parathion. Which of the following drugs can be given to increase the activity of his acetyl cholinesterase?
- (a) Atropine (b) Dimercaprol (c) Physostigmine (d) Pralidoxime
- 7) Drug used in treatment of torsade de pointes:
- (a) Quinidine (b) Amiodarone (c) Isoprenaline (d) Verapamil
- 8) In a patient with hypertriglyceridemia and low HDL, which of the following drug will be best without risk of myocardial side effect?
- (a) Fibric acid derivatives (b) Nicotinic acid (c) Atorvastatin (d) Clofibrate
- 9) A patient of bronchial asthma was prescribed 2 puffs from a metered dose inhaler of budesonide. Which of the following should NOT be done?
- (a) Shake the inhaler well before use (b) Clean the inhaler after every use
(c) Wait for 1 minute in between puffs (d) Rinse mouth after every use
- 10) A 30 years old pregnant woman has a history of rheumatoid arthritis which has been managed successfully with NSAIDs. However, she has recently visited her general practitioner complaining of burning epigastric

pain worsened by food intake. Which of the following ulcer Medications is most likely contraindicated in this patient?

- (a) Famotidine (b) Omeprazole (c) Misoprostol (d) Ranitidine

Q2. Long Answer Questions

a. A 35-year-old woman was taking combined oral contraceptive pills. She was diagnosed as a case of Pulmonary tuberculosis and put on isoniazid, rifampicin, pyrazinamide and ethambutol combination therapy daily for 2 months followed by isoniazid and rifampicin thrice weekly for 4 months. In the 3rd month of treatment, she failed to have withdrawal bleeding during the gap period of contraceptive cycle. Later her urinary pregnancy test was found positive.

I What is the reason for contraceptive failure?

II Explain Phase I biotransformation reaction with suitable examples.

III Explain Microsomal Enzyme Induction.

IV Explain microsomal enzyme inhibition with suitable examples. $2 \times 20 = 40$

b. A 70 years old male presented with complaints of weak stream of urine, sense of incomplete voiding and increased urinary frequency. On physical examination and

ultrasound, he was diagnosed as having benign prostatic hyperplasia.

I Enumerate 05 drugs used in the treatment of benign prostatic hyperplasia (BPH).

II What is the rationale of using these drugs in benign prostatic hyperplasia (BPH).

III Write down the mechanism of action and common side effects of these drugs.

IV What is the role of finasteride in the treatment of benign prostatic hyperplasia (BPH)

Q3. Brief Answer Questions

- a. Enumerate Proton pump inhibitors with their therapeutic uses. Mention first line Anti H. pylori regimen. 6 x 05 = 30
- b. Treatment of status asthmaticus.
- c. Enumerate parenteral iron preparations. Mention in which condition iron therapy be administered by injection route.
- d. Classify Anti-Hypertensive Drugs. Enumerate drug used in hypertension during pregnancy.
- e. Classify loop diuretics. Enumerate therapeutic uses and adverse effects of loop diuretics.
- f. Classify various dosage forms of drug. Write in brief

Q4. Short Answer Questions

- a. Enumerate 04 therapeutic uses of centrally acting skeletal muscle relaxants. $10 \times 2 = 20$
- b. Post marketing surveillance study.
- c. Enumerate 02 differences between first and zero order kinetics.
- d. Explain, why low dose of aspirin is used for myocardial infarction?
- e. Name two anti-secretory anti motility drug for treatment of diarrhea.
- f. Explain pharmacological basis of combination of Calcium and Magnesium salts in most of antacid preparations.
- g. Enumerate 2 drugs used in the treatment of productive cough.
- h. Role of nitrates in cyanide poisoning.
- i. Enumerate 04 therapeutic uses of Fibrinolytics.
- j. Mechanism of action of osmotic diuretics.
