

Date: 29-03-2023

0323 E647

Second Year MBBS Examination

II MBBS Pharmacology Paper 2

Time: 3 hours

Max Marks: 100

Instructions:

1. Answer to the points.
2. Figure to the right indicates marks.
3. Use separate answer books for each section.
4. Draw diagrams wherever necessary.
5. Write legibly.

Section 1

1. Answer any one of the following

a) Enumerate aminoglycosides. (10)

Explain their mechanism of action and class adverse drug reactions (ADRs) in clinical therapy. Why once-daily dosing is preferred with these drugs?

b) A 46 year old man (2+2+4+2=10) weighing 57 kg, is diagnosed with pulmonary tuberculosis. Explain the pharmacotherapy for this patient with duration of treatment as per latest guidelines. Explain the need for multiple drug therapy and prolonged duration of treatment for this condition. What ADRs should you look out for, during treatment of this patient? (4+3+3=10)

2. Answer any two of the following:

a) Antimicrobial resistance (AMR) is (12) on the rise. As a prescriber, which points should you adhere to while prescribing antimicrobials to minimize risk of AMR?

b) A 25 year old pregnant woman is diagnosed with vivax malaria in a chloroquine sensitive region. Describe the pharmacotherapy for this patient and explain the rationale for choosing the regimen.

c) A 58 year old type 2 diabetic develops an abscess over his upper back. Which

group of antimicrobials would you prefer for this patient and why?

3. Write short notes on any three of the following: (18)

- a) Omeprazole (Mechanism of action, uses)
- b) Treatment regimen for multibacillary leprosy (regimen and rationale)
- c) Post exposure prophylaxis of HIV (regimen and rationale)
- d) Cephalosporins (Mechanism of action and spectrum)

4. Answer any five of the following briefly: (10)

- a) Why are topical antibiotics preferred in some instances?
 - b) Enumerate drugs used in pharmacotherapy of H. pylori infection.
 - c) Enumerate the problems associated with use of broad spectrum antibiotics.
 - d) Why Primaquin is useful in both falciparum and vivax malaria?
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- e) Why prolonged treatment is needed for management of onychomycosis?
- f) Why prophylactic antibiotics are administered before a major abdominal

Section 2

5. Answer any one of the following

- a) Enumerate methods of oral hormonal contraception for women. Explain the mechanism of action of combined oral contraceptive pills(OCP). What are the relative & absolute contraindications for use of OCP (3+4+3) **(10)**
- b) Enumerate drugs used in management of bronchial asthma. Why are some of these agents not useful in an acute attack of asthma? Outline the ADRs associated with the agents used in bronchial asthma and steps that could be taken to prevent them. **(3+2+3+2=10)**

6. Answer any two of the following:

- a) Mrs Y is undergoing chemotherapy **(12)**

for breast cancer and is suffering from intense nausea and vomiting. Enumerate suitable antiemetics for her. Explain the mechanism of action of any one group of antiemetics.

b) Mr. X, 25 years was suffering from pneumonia and was being treated successfully with suitable antibiotics. After one week of recovery he is still complaining of dry cough. Compare and contrast the different cough relievers that could be used.

c) Mrs Y, is suffering from breast cancer and has been prescribed Tamoxifen. What is the mechanism of action of this drug in breast cancer? Outline the rationale for its use.

7. Write Short notes on any three of the following: (18)

a) Metformin (Mechanism of action, ADRs)

b) Propylthiouracil (Mechanism of action, uses)

- c) ORS is effective in management of mild to moderate dehydration. Justify.
- d) Role of prostaglandin analogues in management of glaucoma.

8. Answer briefly any five of the following: (10)

- a) Why frequent pulse polio vaccine campaigns are necessary?
- b) Why Insulin is to be prescribed even to individuals who have good glycemic control in some special situations?
- c) Why Antacids are not to be combined with proton pump inhibitors?
- d) Mechanism of action of oxytocin during labour.
- e) Why Folic acid should be administered to all pregnant women?
- f) Why Vitamin D and Calcium are prescribed together in patients with osteoporosis