2019 Scheme

Q.P. Code: 212001 Reg. no.: .....

Second Professional MBBS Degree Supplementary Examinations
December 2025
Pharmacology - Paper II
(GIT, Hormones, Antibiotics, Chemotherapy and Miscellaneous)

Time: 3 Hours Total Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers*
- *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

1. Multiple Choice Questions (20x1=20)

The **MCQ** questions (Q No. i to Q No. xx) shall be answered **only in the OMR sheet provided at page No. 51** of the answer book (the inner portion of the back cover page (PART III)). Responses for MCQs marked in any other part/page of the answer book will not be valued. **For marking the correct responses use X mark only**

Question Numbers i – v are Single Response Type

i Prokinetic agent producing Q-Tc prolongation and predispose to polymorphic ventricular tachycardia
a) Mosapride b) Cisapride c) Itopride d) Levosulpride

ii Which of the following is an Osmotic purgative
a) Lactulose b) Lubiprostone c) Methyl cellulose d) Bisacodyl

iii A long and dose dependent Post antibiotic effect is seen with
a) Ampicillin b) Clavulanic acid c) Streptomycin d) Chloramphenicol

iv Fourth generation Cephalosporin
a) Cefoxitin b) Cefdinir c) Cefpirome d) Cefadroxil

v Primary important indication for use of calcium disodium edetate
a) Lead poisoning b) Mercury poisoning c) Antimony poisoning d) Nickel poisoning

Question Numbers vi – x are Multiple Response Type. Read the statements and mark the answers appropriately

vi Epidermal growth factor receptor inhibitors
1) Gefitinib 2) Erlotinib 3) Imatinib 4) Sunitinib
a) 1 & 2 are correct b) 2 & 3 are correct c) 3 & 4 are correct d) 1 & 4 are correct

vii Anthelmintics used for the treatment of Neurocysticercosis
1) Albendazole 2) Praziquantel 3) Ivermectin 4) Diethylcarbamazine
a) 1 & 2 are correct b) 2 & 3 are correct c) 3 & 4 are correct d) 1 & 4 are correct

viii. Metronidazole is useful in the treatment of
1) Intestinal amoebiasis 3) Leishmaniasis
2) Anaerobic bacterial infection 4) Filariasis
a) 1 & 2 are correct b) 2 & 3 are correct c) 3 & 4 are correct d) 1 & 4 are correct

ix Antimalarial drugs used for causal prophylaxis
1) Mefloquine 2) Primaquine 3) Proguanil 4) Chloroquine
a) 1 & 2 are correct b) 2 & 3 are correct c) 3 & 4 are correct d) 1 & 4 are correct

x Topical antifungal agents
1) Tolnaftate 2) Voriconazole 3) Caspofungin 4) Griseofulvin
a) 1 & 2 are correct b) 2 & 3 are correct c) 3 & 4 are correct d) 1 & 4 are correct

Question Numbers xi – xv are based on case scenarios. Read the statements and mark the answers accordingly.

A 52 year old man is brought to the hospital emergency department in a confused and delirious state. He had an elevated temperature for more than 24 hr, severe headache and nausea and vomiting. Lumbar puncture reveals an elevated opening pressure and cerebrospinal fluid analysis shows an elevated protein, decreased glucose and an increased neutrophils. Gram staining reveals the presence of Gram positive diplococci and a diagnosis of purulent meningitis is made

xi. Treatment of this patient should be initiated immediately with intravenous administration of
a) Amoxicillin b) Cephalexin c) Ceftriaxone + Vancomycin d) Nafcillin

xii. Resistance to Pneumococci to penicillin G is due to
a) Alterations in porin structure
b) Beta – lactamase production
c) Changes in chemical structure of target penicillin binding proteins
d) Changes in the d-Ala-d-Ala building block of peptidoglycan precursor

xiii. If the patient had the gram stain of the smear of cerebrospinal fluid revealing gram-positive rods resembling diphtheroids, the antibiotic regimen for empiric treatment would include
a) Ampicillin b) Cefoxitin c) Ceftriaxone d) Fosfomycin

xiv. The primary mechanism of antibacterial action of Penicillin involves inhibition of
a) Beta-lactamases
b) Cell membrane synthesis
c) N-acetylmuramic acid synthesis
d) Cell wall synthesis

xv. Which statement about Vancomycin is accurate
a) Active drug against methicillin-resistant staphylococci
b) Bacteriostatic
c) Binds to penicillin binding proteins
d) Inhibits transpeptidation

Question numbers xvi – xx consists of statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate options given below.

a) Both A & R are true and R is the correct explanation
b) Both A & R are true and R is not the correct explanation
c) A is true but R is false
d) A is false but R is true

xvi. **Assertion:** Lafutidine is indicated in the treatment of dyspepsia, peptic ulcer and GERD
Reason: Lafutidine decrease acid secretion, enhance mucosal blood flow and has gastro protective effect by increasing mucus production

xvii. **Assertion:** Superactive GnRH agonists are more potent than natural GnRH and long acting
Reason: Superactive GnRH agonists have higher affinity for GnRH receptors and are resistant to enzymatic hydrolysis

xviii. **Assertion:** Cimetidine produce gynaecomastia, loss of libido and produce impotence when given in lower doses for longer duration of time
Reason: Cimetidine increase plasma prolactin and inhibits degradation of estradiol by liver

xix **Assertion:** Concurrent administration of Erythromycin and drugs like Terfenadine and Astemizole increase the risk of Q-Tc prolongation and severe ventricular tachycardia
Reason: Since erythromycin is an enzyme inducer, it induces CYP 3A4 and increase the metabolism of Terfenadine and Astemizole

xx **Assertion:** Monotherapy with INH in tuberculosis management, resistant infection is reduced
Reason: High degree of resistance to INH is shown by the inherently resistant tubercle organisms by mutation of the catalase-peroxidase (KatG) gene

Long Essays: **(2x10=20)**

2 Classify the oral antidiabetic drugs. Discuss the mechanism of action, interactions and adverse effects produced by Sulfonylureas. How will you manage a patient with Diabetic ketoacidosis (4+3+3)

3. A 68 year old woman presented complaints of generalized joint pain since 2 months that was progressive gradually. She also had morning stiffness. Physical examination reveals bilateral symmetrical swelling. Blood haematology shows raised erythrocyte sedimentation rate and rheumatoid factor
a) Classify the drugs used for treatment of Rheumatoid arthritis
b) Explain in detail the mechanism of action, therapeutic uses and adverse effects of Methotrexate
c) Add a note on DMRDs (3+4+3)

Short Essays: **(6x6=36)**

4. Enumerate therapeutic uses of Corticosteroids
5. Treatment of pulmonary tuberculosis
6. Discuss the pharmacology of Selective Estrogen Receptor Modulators
7. Write about the mechanism of action and therapeutic uses of Fluoroquinolones
8. Discuss the role of Artemisinin derivatives in malaria treatment
9. Discuss in detail penicillins

Short Answers: **(6x4=24)**

10. Write about the drugs used for treatment of Thyroid storm
11. Management of Helicobacter pylori infection
12. Discuss the advice to be given to a newly detected diabetic lady (82 Kg)
13. How will you treat a case of lower urinary tract infection in a female of 32 years, caused by E.Coli
14. What are the common toxicities produced by cancer chemotherapy
15. Metoclopramide

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