

**MBBS PHASE – II (NON-CBME)  
DEGREE EXAMINATION – AUGUST 2025**

**Time 3 Hours**

**Max. Marks 100**

**PHARMACOLOGY  
PAPER – II**

**Q.P. Code 1007**

Answers should be specific to the Questions asked.

Draw neat, labeled diagrams wherever necessary.

All questions are compulsory.

<b>Question Number</b>	<b>Marks</b>
1. M.C.Q.	<b>25 X 1 = 25</b>
<b>LONG ESSAY QUESTIONS</b>	<b>2 X 10 = 20</b>
2. Classify NSAIDs. Discuss mechanism of action, therapeutic uses and adverse effects of aspirin.	(4+2+2+2)
3. Classify antiretroviral drugs. Write mechanism of action and adverse effects of nucleoside reverse transcriptase inhibitors. Write a note on post exposure prophylaxis.	(3+2+2+3)
<b>SHORT ESSAY QUESTIONS</b>	<b>8 X 5 = 40</b>
4. Discuss the uses of methotrexate as immunomodulator. Add a note on its adverse effects.	
5. Enumerate Beta lactamase inhibitors and their uses.	
6. Enumerate laxatives and purgatives. Discuss their uses and adverse effects.	
7. Enumerate Oral contraceptive pills (OCPs) preparations with their MOA.	
8. Discuss the role of Bronchodilators in bronchial asthma.	
9. Discuss the mechanism of action and therapeutic uses of Ondansetron.	
10. Discuss the role of Meglitinide analogues in Diabetes mellitus.	
11. Discuss chemoprophylaxis of Malaria.	
<b>SHORT ANSWER QUESTIONS</b>	<b>5 X 3 = 15</b>
12. Give Pharmacological basis / reasons for the following statement. Latanoprost eye drops are used in patients with Glaucoma.	
13. Enumerate <b>three</b> live attenuated vaccines.	
14. Mention the preparations and uses of vitamin D.	
15. Name <b>three</b> GnRH agonists with their indications.	
16. Mention <b>three</b> antiseptics containing Iodine with their uses.	

**MULTIPLE CHOICE QUESTIONS**

<b>Course:</b> MBBS Phase-II, (Non-CBME) August 2025	<b>Max. Marks:</b> 25 Marks
<b>Subject:</b> Pharmacology Paper-II, QP Code 1007	<b>Time:</b> 30 Minutes

**Instructions**

- Each question is followed by four options.
- Pick up the single best option and darken the appropriate circle in the OMR Sheet provided.
- Each question carries one mark. No negative marking.

1. Disodium cromoglycate is administered by following route  
(A) Inhalational (B) Oral  
(C) Intravenous (D) Intramuscular
2. Bromocriptine is useful in all **EXCEPT**  
(A) Parkinsonism (B) Prolactinoma  
(C) Endogenous depression (D) Infertility
3. Which of the following is a **common** side effect of long term use of topical corticosteroids?  
(A) Skin thickening (B) Skin atrophy  
(C) Increased hair growth (D) Hyperpigmentation
4. Accidental IV injection of procaine penicillin produces  
(A) CNS depression (B) Hallucinations and convulsions  
(C) Nausea (D) None of the above
5. Which of the following is an orally active Iron chelator?  
(A) Deferiprone (B) EDTA  
(C) BAL (D) Deferoxamine
6. Biological agent used in rheumatoid arthritis is  
(A) Rituximab (B) Methotrexate  
(C) Azathioprine (D) Sulfasalazine
7. Which of the following drugs is taken during the first part of the meal for the purpose of delaying absorption of dietary carbohydrates?  
(A) Acarbose (B) Glipizide  
(C) Nateglinide (D) Pioglitazone
8. Fastest acting inhaled bronchodilator is  
(A) Ipratropium bromide (B) Formoterol  
(C) Salbutamol (D) Bambuterol
9. Which antimicrobial should be avoided in patients of liver disease?  
(A) Tetracycline (B) Cotrimoxazole  
(C) Cephalexin (D) Ethambutol
10. Immunosuppressant drug inhibiting the action of IL-2 without inhibiting its transcription is  
(A) Prednisolone (B) Cyclosporine  
(C) Tacrolimus (D) Sirolimus
11. Stimulant purgatives are **contraindicated** in which of the following?  
(A) Bed ridden patients (B) Before abdominal radiography  
(C) Spastic constipation (D) Atonic constipation
12. Which of the following is most **commonly** used for the prophylaxis of migraine?  
(A) Ergotamine (B) Propranolol  
(C) Methysergide (D) Sumatriptan

13. The drug of choice in the treatment of thyrotoxicosis during pregnancy is  
 (A) Carbimazole (B) Iodine therapy  
 (C) Propylthiouracil (D) Methimazole
14. Trimethoprim is combined with sulfamethoxazole in a ratio of 1:5 to yield a steady state plasma concentration ratio of  
 (A) Trimethoprim 1: Sulfamethoxazole 5 (B) Trimethoprim 1: Sulfamethoxazole 10  
 (C) Trimethoprim 1: Sulfamethoxazole 20 (D) Trimethoprim 5: Sulfamethoxazole 1
15. The antiseptic which acts by liberating oxygen to oxidize bacterial protoplasm is  
 (A) Benzalkonium chloride (B) Benzoyl peroxide  
 (C) Isopropanol (D) Chlorhexidine
16. For healing duodenal ulcer, the usual duration of H<sub>2</sub> blocker therapy is  
 (A) 4 weeks (B) 6 weeks  
 (C) 8 weeks (D) 12 weeks
17. **Most** potent mineralocorticoid is  
 (A) Aldosterone (B) DOCA  
 (C) Fludrocortisone (D) Triamcinolone
18. Salicylic acid is **commonly** used in the treatment of  
 (A) Eczema (B) Warts and corns  
 (C) Herpes simplex (D) Fungal infections
19. The drug of choice for tropical eosinophilia is  
 (A) Diethyl carbamazine (B) Carbamazepine  
 (C) Dicyclomine (D) Carbimazole
20. Side effects of cyclosporine are all, **EXCEPT**  
 (A) Nephrotoxicity (B) Bone marrow suppression  
 (C) Hypertension (D) Hirsutism
21. Bromhexine acts by  
 (A) Inhibiting cough  
 (B) Irritating gastric mucosa and reflexly increasing bronchial secretion  
 (C) Depolymerising mucopolysaccharides present in sputum  
 (D) Desensitizing stretch receptors in the lungs
22. Which prokinetic drug(s) produce(s) extrapyramidal side effects?  
 (A) Metoclopramide (B) Cisapride  
 (C) Domperidone (D) All of the above
23. Platelet aggregation is caused by  
 (A) Thromboxane – A<sub>2</sub> (B) Clonidine  
 (C) Glutethamide (D) Hydralazine
24. Which disinfectant is **commonly** used for sterilizing heat sensitive medical equipments like endoscopes?  
 (A) Isopropyl alcohol (B) Formaldehyde  
 (C) Gluteraldehyde (D) Hydrogen peroxide
25. The systemic antifungal drug that is eliminated mainly by kidney is  
 (A) Ketoconazole (B) Itraconazole  
 (C) Fluconazole (D) Variconazole



11			Fastest acting inhaled bronchodilator is	(1)
			1) Ipratropium bromide    2) Formoterol    3) Salbutamol    4) Bambuterol	
12			The NSAIDs aggravate all of the following diseases <b>EXCEPT</b>	(1)
			1) Hypertension    2) Congestive heart failure    3) Peptic ulcer    4) Chronic gout	
13			Drug used in the treatment of Influenza virus infection is	(1)
			1) Acyclovir    2) Amantadine    3) Zidovudine    4) Ritonavir	
14			Mechanism of action of penicillins and cephalosporins is to inhibit	(1)
			1) Cell wall synthesis    2) Leakage from cell membrane    3) Protein synthesis    4) DNA gyrase	
15			A 51-year-old woman with a long history of chronic obstructive pulmonary disease was admitted to the hospital for an acute exacerbation of her disease. The patient's medications on admission were inhaled ipratropium and oral theophylline. Which of the following molecular actions on bronchial smooth muscle <b>most</b> likely contributed to the bronchodilating effect of theophylline in this patient?	(1)
			1) Stimulation of nitric oxide release    2) Inhibition of phosphodiesterase 4 (PDE4)    3) Activation of adenosine receptors    4) Activation of $\beta_2$ adrenoceptors	
16			Aprepitant is a	(1)
			1) H2 receptor blocker    2) D2 receptor blocker    3) NK1 receptor antagonist    4) 5HT3 receptor antagonist	
17			Gynaecomastia can occur as a side effect of	(1)
			1) Bromocriptine    2) Cimetidine    3) Famotidine    4) Omeprazole	
18			Patients treated with which the following anticancer drug are likely to develop a disulfiram like reaction on taking alcohol?	(1)
			1) Dacarbazine    2) Procarbazine    3) Melphalan    4) Hydroxyurea	
19			A 34-year-old woman complained to her gynaecologist of severe pelvic pain during both menstrual and nonmenstrual days. The woman, diagnosed with endometriosis 1 year earlier, had good pain relief after surgical ablation of endometriotic lesions, but her symptoms had returned. Her gynecologist prescribed a cycle of therapy with leuprolide. Which of the following adverse effects would be expected to occur during the therapy?	(1)
			1) Galactorrhea    2) Menorrhagia    3) Hot flushes    4) Venous thrombosis	
20			A 66-year-old man complained to his physician of heartburn and a weight gain of 6.8 kg. The patient, who was suffering from Myasthenia Gravis, had been receiving a multiple drug treatment for 3 months. Laboratory results showed serum calcium of 7.4 mg/dL and fasting blood glucose of 160 mg/dL. Which of the following drugs <b>most</b> likely caused the patient's signs and symptoms?	(1)
			1) Fludrocortisone    2) Azathioprine    3) Neostigmine    4) Dexamethasone	

**LONG ESSAY QUESTIONS: 2 X 10 = 20**

**Answer all the questions.**

21			A 60-year-old female patient with complains of easy fatiguability since 6 months visits the medicine OPD. Routine check-up showed her fasting blood glucose level -160 mg/dL, a subsequent haemoglobin Hb A1c measurement was 7.1% and her BMI was 31.5 kg/m2 suggestive of patient diagnosed with diabetic mellitus type II.	(10)
			a) Classify oral hypoglycaemic drugs.	
			b) Discuss the mechanism of action of drugs prescribed to treat this case with uses	
			c) Add a note on management of Diabetic ketoacidosis.(3+4+3)	

22			Enlist various first line & second line anti-tubercular drugs. Describe mechanism of action and adverse effects of first line drugs. (3+4+3)	(10)
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**SHORT ESSAY QUESTIONS: 9 X 5 = 45**

**Answer all the questions.**

23			Discuss different actions of aspirin at different dose range. Add a note on side effects and the management of acute salicylate poisoning. (2+2+1)	(5)
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24			Discuss the mechanism of action, uses and adverse effects of methotrexate. (2+1.5+1.5)	(5)
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25			An adult female patient aged 38 years (weight 48 kg) comes to the hospital with complaints of disturbed sleep, anxiety, weight loss and often feeling of an extra heartbeat. Investigations revealed high T3, T4, and low TSH. What is the diagnosis? Write in detail the class/ group of drugs chosen for this patient. (1+4)	(5)
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26			Discuss mechanism of action and adverse effects of combined oral contraceptive pills.(3+2)	(5)
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27			Describe various drugs used in the treatment of motion sickness with their mechanism of action.(2.5+2.5)	(5)
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28			A 26 year old girl reported to the civil hospital OPD with irregular episodes of high fever for past 5 days. Fever was preceded by chills and shivering associated with headache, body ache, pain in abdomen, nausea and weakness. Each episode of fever lasts for about 4 hours followed by sweating. She had recently returned from her village in tribal area of Chattisgarh. Blood smear examination showed presence of intraerythrocytic P. vivax parasites. a) Classify antimalarial drugs. b) Discuss pharmacotherapy for chloroquine resistant case. (3+2)	(5)
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29			A laboratory staff working in ART centre accidentally pricked his hand while drawing blood from a HIV positive patient. a) Explain the prophylactic drugs that should be advised for the laboratory staff to prevent the infection b) Enumerate various adverse drug reactions with use of those medications.	(5)
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30			What are chelating agents? Write their clinical importance with examples.(2+3)	(5)
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31			A 30 year old man (weight 73 kg) comes to hospital with complaints of about four episodes of watery diarrhea and two episodes of vomiting since morning. History reveals that he has attended a birthday party yesterday night. His blood pressure was 112/78 mm Hg. Discuss the pharmacotherapy of acute gastroenteritis and add a note on ORS therapy.(3+2)	(5)
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**SHORT ANSWER QUESTIONS: 5 X 3 = 15**

**Answer all the questions.**

32			Enumerate the <b>six</b> adverse effects of estrogen.	(3)
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33			Enumerate <b>three</b> prokinetic agents.	(3)
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34			Explain Prophylactic use of sodium cromoglycate in asthma.	(3)
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35			Discuss the role of autonomy and shared responsibility as a guiding principle in patient care.	(3)
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36			Name <b>three</b> topical steroids with their uses.	(3)
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