

**Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
DEEMED TO BE UNIVERSITY**



**M.B.B.S DEGREE EXAMINATIONS, APRIL – 2022
SECOND YEAR
BMS19205
PHARMACOLOGY – PAPER I**

REGISTER NUMBER									

Time: **Three Hours**

Maximum Marks: **100**

Answer ALL Questions

Draw Suitable Diagrams wherever necessary

PART – A (2x10 = 20 Marks)

ESSAY

1. a) Enumerate four groups of drugs used in the treatment of Parkinson's disease.
b) Describe the pharmacological actions and adverse effects of levodopa.
c) What is the advantage of combining levodopa with the peripheral decarboxylase inhibitor?
(4+5+1)
2. a) Classify antihypertensive drugs.
b) Describe the mechanism of action, uses and adverse effects of angiotensin converting enzyme (ACE) inhibitors.
(4+6)

PART - B (8x5 = 40 Marks)

DETAILED ANSWERS

Explain the following

3. Plasma half-life.
4. Transdermal therapeutic system.
5. Propofol.
6. Amphetamine.
7. Tramadol.
8. Dopamine in cardiogenic shock.
9. Therapeutic uses of adrenergic drugs.
10. Mechanism of action of loop diuretics.

PART - C (10x2 = 20 Marks)**SHORT NOTES**

11. Rationale for use of calcium channel blockers in angina.
12. What is Pharmacogenomics? Give an example.
13. What are Orphan drugs?
14. What is Iatrogenic disease? What are the types?
15. Write low molecular weight heparins and their therapeutic uses.
16. Name two fibrinolytics and their therapeutic uses.
17. Name four drugs used in angina pectoris.
18. Write the mechanisms of action of cocaine.
19. Write the mechanisms of actions of atypical antipsychotics.
20. Name the dose dependant pharmacological effects of Dopamine.

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PHARMACOLOGY – PAPER I

PART - D (20x1 = 20 Marks)
MULTIPLE CHOICE QUESTIONS

21.	A hydrophilic medicinal agent has the following property:
A.	Low ability to penetrate through the cell membrane lipids
B.	Penetrate through the membranes by means of endocytosis
C.	Easy permeation through the blood-brain barrier
D.	High reabsorption in renal tubules

22.	Which of the following processes proceeds in the second phase of biotransformation?
A.	Acetylation
B.	Reduction
C.	Oxidation
D.	Hydrolysis

23.	Irreversible interaction of an antagonist with a receptor is due to:
A.	ionic bonds
B.	hydrogen bonds
C.	covalent bonds
D.	substrate

24.	Indicate the local anesthetic agent, which has a shorter duration of action.
A.	Lidocaine
B.	Procaine
C.	Bupivacaine
D.	Ropivacaine

25.	Indicate the drug, which has greater potency of the local anesthetic action.
A.	Lidocaine
B.	Bupivacaine
C.	Procaine
D.	Mepivacaine

26.	Which of the following cholinomimetics activate both muscarinic and nicotinic receptors?
A.	Lobeline
B.	Pilocarpine
C.	Nicotine
D.	Bethanechol

27.	Parasympathomimetic drugs cause
A.	bronchodilation
B.	mydriasis
C.	bradycardia
D.	constipation

28.	Which of the following sympathomimetics acts indirectly?
A.	Epinephrine
B.	Norepinephrine
C.	Ephedrine
D.	Methoxamine

29.	Indicate the sympathomimetic, which may cause hypotension, presumably because of a clonidine-like effect.
A.	Methoxamine
B.	Phenylephrine
C.	Xylometazoline
D.	Isoproterenol

30.	Select a hypnotic drug, which is an benzodiazepine derivative.
A.	Zolpidem
B.	Flurazepam
C.	Secobarbital
D.	Phenobarbitone

31.	Select a hypnotic agent which is a barbituric acid derivative.
A.	Pentobarbital
B.	Temazepam
C.	Thiopental
D.	Triazolam

32.	Select a hypnotic drug, which is an imidazopyridine derivative.
A.	Pentobarbital
B.	Temazepam
C.	Zolpidem
D.	Chloral hydrate

33.	The drug against myoclonic seizures is:
A.	primidone
B.	carbamazepine
C.	clonazepam
D.	phenytoin

34.	Select the agent, which is preferred in the treatment of the drug-induced form of Parkinsonism.
A.	Levodopa
B.	Bromocriptine
C.	Benztropine
D.	Dopamine

35.	Indicate the second-generation heterocyclic drug.
A.	Maprotiline
B.	Imipramine
C.	Phenelzine
D.	Fluoxetine

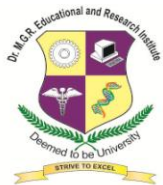
36.	Which drug DOES NOT influence leucopoiesis?
A.	Filgrastim
B.	Erythropoietin
C.	Doxorubicin
D.	Methotrexate

37.	Select the drug used in pernicious anemia.
A.	Ferrous lactate
B.	Cyanocobalamin
C.	Iron dextran
D.	Ferrous gluconate

38.	Select the drug of granulocyte colony-stimulating factor.
A.	Filgrastim
B.	Methotrexate
C.	Erythropoietin
D.	Doxorubicin

39.	Indicate the drug belonging to anticoagulants of direct action.
A.	Aspirin
B.	Heparin
C.	Dicumarol
D.	Phenprocoumon

40.	Which of the following drugs is an inhibitor of platelet glycoprotein IIb/IIIa receptors?
A.	Aspirin
B.	Clopidogrel
C.	Ticlopidine
D.	Abciximab



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**M.B.B.S DEGREE EXAMINATIONS, APRIL – 2022
SECOND YEAR
BMS19206
PHARMACOLOGY – PAPER II**

REGISTER NUMBER									

Time: **Three Hours**

Maximum Marks: **100**

Answer ALL Questions

Draw Suitable Diagrams wherever necessary

PART – A (2x10 = 20 Marks)

ESSAY

1. a) Classify penicillins and write their mechanism of action.
b) Write the uses and adverse effects of amoxicillin. (6+4)
2. a) Classify oral anti-diabetic drugs.
b) Describe the mechanism of action and adverse effects of sulfonylureas. (4+6)

PART - B (8x5 = 40 Marks)

DETAILED ANSWERS

Explain the following

3. Uses and adverse effects of glucocorticoids.
4. Rationale of combining estrogen and progestin for contraception.
5. Uses and adverse effects of ciprofloxacin.
6. Second generation anti-histamines.
7. Selective cyclooxygenase-2 (COX-2) inhibitors.
8. Metronidazole.
9. Fluconazole.
10. Methylxanthines used in bronchial asthma.

PART - C (10x2 = 20 Marks)**SHORT NOTES**

11. Write the uses and adverse effects of Loperamide.
12. What are the uses of Domperidone?
13. Write the uses of acyclovir.
14. What is Sumatriptan? Write its uses.
15. What is Methyl ergometrine used for?
16. Write the side effects of Carbimazole.
17. Briefly write the Vitamin-D preparations and uses.
18. What is Tacrolimus. What are the uses?
19. Give examples of Mucolytics.
20. What are the uses of Sucralfate?

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PHARMACOLOGY – PAPER II

PART - D (20x1 = 20 Marks)
MULTIPLE CHOICE QUESTIONS

21.	Which of the following is a topically used aminoglycoside?
A.	Neomycin
B.	Amikacin
C.	Streptomycin
D.	Netilmicin

22.	The target of action of fluoroquinolones in Gram positive bacteria is,
A.	topoisomerase – II
B.	folate synthetase
C.	topoisomerase – IV
D.	dihydrofolate reductase

23.	The drug which can prevent relapse of Plasmodium vivax malaria is:
A.	Mefloquine
B.	Primaquine
C.	Chloroquine
D.	Hydroxy chloroquine

24.	Which of the following anti-retroviral drugs is an Integrase inhibitor?
A.	Ritonavir
B.	Tenofovir
C.	Lopinavir
D.	Raltegravir

25.	The mechanism of action of teneligliptin is the inhibition of
A.	dipeptidyl peptidase-4
B.	sodium-glucose cotransport-2
C.	alpha-glucosidase
D.	insulin release

26.	All the following drugs are useful in the treatment of osteoporosis, EXCEPT
A.	Clomifene
B.	Alendronate
C.	Calcitriol
D.	Raloxifene

27.	Metoclopramide acts through the following mechanisms, EXCEPT
A.	Dopamine D2 receptor antagonism
B.	Muscarinic M3 receptor antagonism
C.	5-HT ₄ receptor agonism
D.	5-HT ₃ receptor antagonism

28.	Which of the following drugs inhibits mitosis by damaging microtubules?
A.	Cisplatin
B.	Alendronate
C.	Calcitriol
D.	Raloxifene

29.	The drug which is effective in leprosy as well as controlling lepra reaction is,
A.	Clofazimine
B.	Rifampin
C.	Dapsone
D.	Prednisolone

30.	Albendazole is useful against all the following, EXCEPT
A.	Ascaris lumbricoides
B.	Enterobius vermicularis
C.	Entamoeba histolytica
D.	Ancylostoma duodenale

31.	Which of the following drugs inhibits enkephalinase and decrease intestinal hypersecretion?
A.	Metoclopramide
B.	Racecadotril
C.	Esomeprazole
D.	Liquid paraffin

32.	Which of the following is an example of GnRH antagonist?
A.	Cabergoline
B.	Octreotide
C.	Ganirelix
D.	Goserelin

33.	Which of the following statements about corticosteroids is incorrect?
A.	They enhance renal excretion of calcium.
B.	Enhance destruction of malignant lymphatic cells.
C.	Decrease glucose uptake in peripheral tissues.
D.	They increase capillary permeability.

34.	The preferred drug to treat chronic adrenal insufficiency is:
A.	betamethasone
B.	beclomethasone
C.	hydrocortisone
D.	triamcinolone

35.	Which of the following statements about paracetamol is incorrect?
A.	It is a safe anti-pyretic in elderly people.
B.	It has anti-platelet action in low doses.
C.	Acts on Cyclooxygenase-3 in the central nervous system.
D.	It cannot inhibit Cyclooxygenase in the presence of peroxides.

36.	Which of the following drugs is NOT useful in acute gout?
A.	Probenecid
B.	Naproxen
C.	Colchicine
D.	Diclofenac

37.	Which of the following prostaglandin preparations is used in glaucoma?
A.	Dinoprost
B.	Gemeprost
C.	Carboprost
D.	Travoprost

38.	Which of the following insulin preparations may be administered by intravenous route?
A.	Insulin Glargine
B.	Isophane insulin
C.	Regular insulin
D.	Insulin detemir

39.	All the following drugs used in bronchial asthma can be inhaled, EXCEPT
A.	Montelukast
B.	Sodium cromoglycate
C.	Formoterol
D.	Ipratropium bromide

40.	Which of the following anti-histamines is used as appetite stimulant?
A.	Cyproheptadine
B.	Chlorpheniramine
C.	Fexofenadine
D.	Cinnarizine