

General Pharmacology

1/2 marks questions:

1. Define MIC (Minimum Inhibitory Concentration) of an antimicrobial agent.
2. Define 'Pseudotolerance' phenomenon with one example.
3. Enumerate one useful and one harmful effect of microsomal enzyme induction.
4. Why any highly plasma protein bound drug like Diazoxide should be given as I/V bolus and not I/V infusion?
5. What is trough level of a drug? Mention its clinical significance
6. Give WHO definition of drug. Write down two advantages of drugs prescribed by generic name.
7. Name two drugs with high plasma protein binding and mention two limitations of such agents
8. Give the concept of "hit and run" drugs with one suitable example
9. Name any two phases of clinical trials.
10. What is drug antagonism? Write down the four difference between competitive and non-competitive antagonism.
11. Describe with suitable examples the concept of up and down regulation of receptor.
12. Explain advantages and disadvantages of sublingual route and i.v. routes of drug administration.
13. What is tachyphylaxis?
14. Give two examples of drug following saturation kinetics.
15. Mention two advantages of sustained release preparations.
16. Define bioavailability
17. What is Placebo?
18. What is plasma half-life of drug? Mention its importance.
19. Give two advantages and disadvantages of sublingual route.
20. What are agonist and antagonist?
21. Explain the effect of non-competitive antagonist on DRC of agonist.
22. Give two methods for prolongation of drug action with examples.
23. Mention the preferred route of administration of the drug having large molecule weight. Give One reasons for your answer.
24. What is double blind study in clinical trial?
25. What is prodrug? Explain giving one example.
26. What is orphan drug? Give one example.
27. By definition, partial agonist have _____ efficacy than _____ agonist.
28. When we can say that spare receptor does exist?
29. Mention two uses of placebo.
30. Define: A. Teratogenicity. B. Phototoxicity
31. Explain briefly the difference between allergic and idiosyncratic reaction.
32. Write two different sources of drug with example.
33. Name two drug with short plasma half life
34. Define clearance. Mention its clinical significance.
35. What is bioassay?
36. Explain tachyphylaxis with example.
37. Explain enzyme inhibition with one example
38. Define therapeutic index. Mention its importance.

39. What is therapeutic drug monitoring? Give one example
40. Define Pharmacovigilance.
41. Give two examples for physiological functional antagonism.
42. Mention two drugs delivered by transdermal patches
43. What is fixed dose combination? Give two examples

3 marks:

1. Explain with suitable example and diagram the concept of zero order and first order kinetic of metabolism.
2. What is the rational use of medicine? Write a note on a rational drug prescribing.
3. What is rational drug therapy? Which important points are considered before beginning of any drug therapy?
4. Explain with suitable example how change in pH of urine is helpful in therapeutics. mention drugs used to alkalinize urine
5. What is DRC? Explain competitive and noncompetitive antagonism with the help of DRC. Give two example each of competitive and noncompetitive antagonism.
6. Explain giving three examples the importance of abrupt drug withdrawal in therapeutics.
7. Discuss with suitable examples the concept of up and down regulation of receptors.
8. Explain with suitable examples how OTC drugs can be hazardous in therapeutics.
9. What is “thalidomide tragedy”? what lesson the world had learnt from that?
10. Describe with suitable examples the following statements:
 - a. Drug metabolism as a mechanism of termination of drug action
 - b. Drug metabolism as a mechanism of drug activation
11. Describe with suitable example the drug nomenclature.
12. Describe with suitable examples enzyme induction and inhibition in liver
13. Define and describe with the help of diagrams the concept of plasma half life of a drug.

5 marks:

1. Explain in detail about following pharmacokinetic parameters:
 - A. Bioavailability
 - B. Clearance
2. Describe in brief various factors modifying drug action.
3. Describe the aims of various phases of clinical trials. Explain the meaning of “double blind placebo controlled randomized clinical trial of drug”
4. Discuss Vd, clearance and half-life of a drug. giving suitable example explain their importance in clinical practice
5. Discuss various drug-drug interactions in therapeutics giving suitable examples
6. Discuss various requirements and limitation of clinical trials.
7. Describe with suitable examples the pharmacokinetic and pharmacodynamic interaction
8. Describe drug potency, drug efficacy, therapeutic efficacy, drug selectivity and drug specificity with suitable example and graph.

Autonomic Nervous System

1/2 marks:

1. Why Edrophonium but not Neostigmine is used to diagnose cholinergic crisis from myasthenic crisis?
2. Write in a brief about the pharmacotherapy of myasthenia gravis.
3. Describe various antihypertensive mechanism of propranolol.
4. Why physostigmine is preferred over neostigmine in atropine poisoning?
5. What is hypoglycemic unawareness? Name the group of drugs culprit for it.
6. Mention four groups of drugs useful in wide angle glaucoma.
7. Mention two contraindications of nasal decongestant.
8. Why acetylcholine is not useful clinically?
9. Explain mechanism action of clonidine.
10. Describe various stages involved in adrenergic neurotransmission.
11. Compare and contrast neostigmine vs physostigmine
12. Mention two rational uses of adrenaline.
13. Nasal decongestant should not be used for long period. Give reasons.
14. Why tropicamide is preferred over atropine for funduscopy?
15. Name two drugs that block the axonal uptake of noradrenaline.
16. Explain pharmacological basis of use of adrenaline in anaphylactic shock.
17. Enumerate therapeutic uses of choline esters
18. Write briefly about xylometazoline.
19. Mention two use of alpha blockers.
20. Name two drugs which can produce mydriasis without cycloplegia
21. Describe pharmacotherapy of organophosphate poisoning.
22. Why adrenaline should be given by intramuscular route rather than subcutaneous route anaphylactic shock?
23. Mention two effects of competitive antagonist on DRC of agonist
24. Name two drugs from different groups used in benign hypertrophy of prostate
25. Write two extra cardiac uses of β -blockers
26. Name two central sympatholytic agents write two uses

3 marks:

1. Enumerate various properties of β -blockers and describe how these properties can be useful in therapeutics.
2. Describe pharmacological action and uses of atropine related to eye. How tropicamide differs from atropine?
3. Describe the cardiovascular effects and uses of dopamine. Compare these aspects of dopamine with Dobutamine.
4. Enumerate various selective alfa-1 antagonists. Describe therapeutic uses and adverse effects of these agents.
5. Classify various cholinergic drugs from different categories. Describe the management of organophosphorus poisoning.
6. Classify α adrenergic drugs. Describe their therapeutic uses giving pharmacological basis.
7. Describe therapeutic uses of adrenaline giving their pharmacological basis.
8. Classify anticholinergics. Write in detail about their therapeutic uses.

9. Enlist drug useful in treatment of glaucoma. Explain in detail management of acute narrow angle glaucoma.
10. Write a note on Prazosin.
11. Mention the synthesis, storage & release process of NA in adrenergic neurons with drug which can modify these processes.
12. Describe uses of atropine with pharmacological basis.
13. Describe clinical use of phenylephrine. Mention mode of administration of each use.
14. Enlist various adrenergic agents. Explain their cardiovascular uses.
15. Describe uses of propranolol with the pharmacological basis.
16. Enumerate cardio selective beta blockers. Explain briefly their advantages over non-selective beta blockers.
17. Compare and contrast neostigmine vs physostigmine

5 marks:

1. Describe the process of synthesis, storage, release and termination of action of noradrenaline and various agents /drugs affecting these processes.
2. Enumerate various drugs useful in the treatment of glaucoma. Describe briefly the mechanism of action and clinical status of any two of them.
3. Classify various anticholinergic agents. Mention their therapeutic uses and adverse effects. Give pharmacological basis of each use you mentioned. (Exclude aspects related to eye)
4. Classify anticholinergics. Describe their uses in detail giving proper pharmacological basis
5. Classify various beta blockers. Describe clinical use and ADR of beta blockers.
6. Enumerate various beta blockers. discuss their uses giving the pharmacological basis of each use you mention
7. Classify atropine substitute and/or derivatives and describe their clinical uses.
8. Enlist various type of shock. Outline pharmacotherapy for cardiogenic shock following acute MI.

Autacoids

1/2 marks:

1. Why paracetamol is preferred over aspirin in child having viral infection?
2. Why aspirin is called as 'hit and run' drug?
3. . Role of misoprostol in NSAID induced peptic ulcer.
4. Why is it advisable to co-administer colchicine with allopurinol during initial treatment of gout?
5. _____tends to suppress nausea and vomiting in migraine, while _____may accentuate the same symptoms.
6. Mention two drugs for prophylaxis of migraine.
7. Mention two contraindications for use of ergometrine in a patient of migraine.
8. Aspirin is potent analgesic and very useful in gout at low dose. Give your comment on this statement.
9. Name a drug that replace hepatic glutathione. Mention with basis its clinical use.
10. Justify role of misoprostol in NSAID induced peptic ulcer.
11. What is a uricosuric agent? Give two example.
12. Why is it advisable to co-administer colchicine with allopurinol during intial treatment of gout?
13. Name two selective cox-2 inhibitors.
14. Mention four therapeutic uses of Prostaglandins

3 marks

1. Compare and contrast the clinical uses and adverse effect profile of aspirin, indomethacin and celecoxib
2. What are preferential cox-2 inhibitors? How they differ from selective cox-2 inhibitors? Why
3. selective cox-2 inhibitors have fallen into dispute? .
4. Write the pharmacotherapy of Rheumatoid Arthritis.
5. Classify drugs useful in treatment of Rheumatoid Arthritis. Discuss about disease modifying agents.
6. Describe uses of H₁ antihistaminic based on their pharmacological action.
7. Enlist various H₁ antihistaminic. Mention uses and ADRs of chlorpheniramine.
8. Describe the mechanism of action and toxicities of three different drug groups used in gout.
9. Enlist various drugs for migraine. Describe side effects and contraindications of ergot derivatives.
10. Enumerate two first generation and two second generation antihistaminic. Describe merits and demerits of second generation antihistaminic.
11. Describe with preferred agent the clinical uses of prostaglandin analogues.

5 marks:

1. Classify Nonsteroidal Anti-inflammatory Drugs (NSAID). Describe the indications, adverse effects and contraindications of Aspirin.
2. Classify non-steroidal anti-inflammatory drugs. Describe the pharmacological actions and side effects of the same.

Respiratory system

1/2 marks:

1. List the advantages of using spacer with MDI (Metered Dose Inhaler) for acute attack of bronchial asthma
2. Why ipratropium bromide is preferred over atropine for COPD?
3. Name two drug use for productive cough.
4. Why ipratropium bromide is preferred in COPD patients?
5. Explain briefly role of mucolytic in the treatment of cough
6. A pregnant lady with bronchial asthma has come to labour room with delayed labour. Mention the probable culprit drug for the condition of the patient.
7. Name two opioid antitussive drugs.
8. Why salmeterol should always be used in combination with inhaled steroids?
9. What is the mechanism of action and uses of Montelukast?
10. Define demulcent and give one example.
11. Name two mucolytic agents.
12. Name two directly acting expectorants.
13. Which are dose related side effects of theophylline
14. Name two leukotriene receptor antagonists and its clinical use.
15. Which are the common side effects of inhaled steroid and which instructed should be given to patient to prevent it.

3 marks:

1. Classify various drugs from different categories useful in bronchial asthma? Explain the mechanism of action of corticosteroids in bronchial asthma
2. Enumerate various drugs used to treat bronchial asthma. Mention the role of various selective β_2 agonists in the same.
3. Explain pharmacological basis for uses of inhalational steroids in bronchial asthma and describe their adverse effects. Explain the management of status asthmaticus.
4. Give your comments regarding rationality and limitations on "cough mixtures".

5 marks:

1. Classify drugs for bronchial asthma. Write treatment of acute asthma and status asthmaticus. Also, give an account of prophylactic management of seasonal asthma
2. Classify antiasthmatic drugs. Give a note on any one group of bronchodilator.

Hormones

1/2 marks:

1. Why is it advisable to co-administer colchicine with allopurinol during initial treatment of gout?
2. Why a drug from sulfonylurea class will not be useful in IDDM?
3. Mention two reasons for the use of potassium iodide in patient undergoing subtotal thyroidectomy.
4. Explain why prostaglandins are preferred to oxytocin for Medical Termination of pregnancy in first trimester?
5. Explain why thyroxine may be added to antithyroid drug therapy during pregnancy?
6. Why it is advisable to treat a labile elderly diabetic patient with short acting sulfonylureas than longer one?
7. Which oral antidiabetic agent produces disulfiram like reaction?
8. Name one mineralocorticosteroid antagonist. Mention its one clinical use.
9. Why is ergometrine not used for induction of labour although it is a uterine stimulant?
10. What is hypoglycemic unawareness in a patient of Diabetes Mellitus?
11. Treatment of mother with large doses of _____ reduces the incidence of respiratory distress syndrome in neonates delivered prematurely
12. Oxytocin is given by slow IV infusion. Why?
13. Mention two reasons for the use of potassium iodide in patient undergoing subtotal thyroidectomy.
14. Triiodothyronine is more _____ and _____ acting thyroxine.
15. Explain why oxytocin is used for induction of labour but not the ergometrine.
16. Enumerate two short acting and two long acting insulin analogues.
17. What is the rationale for using Lugol's iodine two week prior to subtotal thyroidectomy?
18. Explain the basis of dexamethasone with ritodrine for premature labour
19. Name one non-steroidal oral contraceptive. Mention its advantages over combine hormonal oral contraceptives.
20. Give reason why Vit D but not parathyroid hormone is used for treatment and prevention of rickets?
21. Mention two insulin sensitizer from different groups.
22. Compare and contrast methylergometrine and oxytocin

3 marks

1. Describe various insulin preparations. Mention the advantages and limitations of human insulin.
2. Describe side effects of corticosteroids group of drugs.
3. Describe various types of oral contraceptives. What is the rationale of combination of estrogen and progesterone for contraception?
4. Enumerate various drugs from different categories with their mechanism of action for migraine.
5. Classify various oral anti-diabetic agents. Describe mechanism of action and adverse effects of any one of them
6. Enumerate various types of oral contraceptives. What is the rational of combination of estrogen and progesterone for contraceptive action?

8. Describe various indications of insulin giving pharmacological basis if any.
9. Write a short note on newer insulin delivery system.
10. Which are the different forms of contraceptives available today? Describe the advantages and disadvantages of hormonal contraceptive agents.
11. Write a short note on insulin analogues.
12. Classify oral hypoglycemic. Explain mechanism of action and ADR of any one class of drugs
13. Classify oral antidiabetic drugs. Describe briefly the treatment of diabetic ketoacidosis
14. Describe therapeutic uses and adverse effect of corticosteroids.
15. Enumerate various drugs for treatment of hyperthyroidism. What is the treatment strategy to manage a patient of hypothyroidism?
16. Enlist various drugs for hyperthyroidism. Compare and contrast these drugs.
17. Enlist various types of insulin preparations. Describe their onset, peak and duration of action.
18. Enumerate various synthetic estrogen compounds. Describe their therapeutic uses giving pharmacological basis.
19. Write a note on each of the following:
 - a. Minipill
 - b. Ulipristal
20. Describe briefly mechanism of action, merits and demerits of radioactive iodine.

5 marks:

1. Describe the various problems that may be encountered when drugs are administered during first trimester of pregnancy. Describe with suitable examples various purposes served by the drugs during labour.
2. Describe rational use of glucocorticosteroids with pharmacological basis of each you mention. What is the key point to prevent HPA axis suppression?
3. Enumerate various oral antidiabetic drugs from different categories. Describe their mechanism of action and adverse effects.
4. Enumerate commonly used glucocorticoids. Describe principles of their use and their adverse effects.
5. Classify all orally useful agents for type II Diabetes Mellitus. Describe various types of insulin and their therapeutic uses.

Peripheral nervous system

1/2 marks:

1. Local anaesthetics occasionally fail to control pain sensation in inflamed tissue. Give reason for the above statement.
2. Give two examples of centrally acting muscle relaxants.
3. Name one site where adrenaline should not be combined with lignocaine for local anaesthesia.
4. Write down two advantages of newer neuromuscular blockers over the older ones
5. Give two therapeutic uses of succinylcholine
6. Name two drug that produce malignant hyperthermia
7. write mechanism of action and use of dantrolene.
8. Name two directly acting muscle relaxants
9. Write four uses of centrally acting muscle relaxants

10. In which type of patient's adrenaline containing local anaesthetic should be avoided?
11. Which surface anaesthetic is use eye tonometry?

3. marks:

1. Write the names of injectable local anaesthetic agents & the different techniques used in local anaesthesia. Also, mention the complications of spinal anaesthesia.
2. Classify neuromuscular blocking agents. Describe mechanism of action, adverse effects and uses of nondepolarizing blockers.
3. Write mechanism of action, pharmacological action, clinical uses and adverse effect of Lignocaine.
4. Compare and contrast properties of succinylcholine and d-tubocurarine.
5. Enumerate various therapeutic uses of botulinum toxin. Discuss how it brings benefits for those conditions.
6. Write a note on centrally acting skeletal muscle relaxants
7. Write a note on complication related spinal anaesthesia

5 marks:

1. Classify local anaesthetic. Write down the detail use of the same
2. Classify neuromuscular block. Write down uses and toxicity of Non-competitive neuromuscular blocker.

Central nervous system

1/2 marks:

1. Mention two pharmacological properties of thiopental sodium which are responsible for rapid induction and rapid recovery from general anaesthesia.
2. Mention two actions of alcohol for which a person is not allowed to drive vehicle.
3. Diazepam is useful in status epilepticus but not so in controlling grandmal epilepsy, give reason.
4. . Mention the two characteristic of Dissociative Anaesthesia & name the drug associated with it.
5. . Mention the names of antidotes of morphine & diazepam
6. Define MAC in relation to anaesthesia. Explain the relationship between the MAC & Potency of anaesthetic agent
7. Give two advantages of methadone as substitution therapy for opioid dependence.
8. Name two drugs which are used in drug induced parkinsonism.
9. Monitoring of plasma concentration of phenytoin is useful in minimizing its toxicity. (Give your Explain disulfiram reaction and two most common drugs causing it. answer in relation to pharmacokinetics).
10. Mention characteristics of dissociative anaesthesia & name the drug associated with it.
11. Justify use of ethanol in methanol poisoning.

12. Why ethyl alcohol is useful in the treatment of methyl alcohol poisoning?
13. What is malignant hyperthermia? Name an important drug for this condition.
14. What is "second gas effect"?
15. Justify use of ethanol in methanol poisoning.
16. Explain why methadone is used in morphine dependence.
17. Mention advantages of carbidopa with levodopa for treatment of Parkinsonism.
18. Mention two drugs which can be used in the treatment of methyl alcohol poisoning
19. Fomepizole inhibits the enzyme _____.
20. Name two typical antipsychotic drugs?
21. Explain pharmacological disulfiram reaction and two most common drugs causing it.
22. Describe the different signs/features of plane-2 of surgical anaesthesia. Name a drug that can mask above signs/features.
23. Mention two drugs which are used in the treatment of mania
24. Define "diffusion hypoxia" in relation to general anaesthetic agents.
25. Name two drugs used in trigeminal neuralgia
26. What is fomepizole? Mention one indication for it.
27. Mention two selective dopamine agonists used in Parkinson's disease.

3 marks:

1. Enumerate various drugs from different categories for the treatment of Parkinson's disease. Explain the 'on and off' phenomenon related to Parkinson's disease in clinical practice. Compare and contrast halothane and ether as general anaesthetic agents
2. Enumerate various anxiolytics from different categories. Describe the drug therapy of insomnia.
3. How anti-psychotic effect of chlorpromazine is explained? How atypical antipsychotic drugs differ from Chlorpromazine?
4. Compare and contrast halothane and ether as general anaesthetic agent.
5. Describe the uses of benzodiazepines. Mention also the reasons why they are preferred over barbiturates for sedative hypnotic use.
6. Write the mechanism of action, uses and adverse effects of halothane.
7. Classify the newer non-benzodiazepine hypnotics. What are their advantages over the older ones?
8. Enlist drugs for Parkinson's disease. Mention mechanism of action and adverse drug reactions of any one of the antiparkinsonian agents.
9. Explain pre-anaesthetic medication. Mention the drugs used with doses & the pharmacological basis for their usage.
10. Enumerate five commonly used drugs for tonic-clonic seizures. Describe briefly the mechanism of action & adverse effects of two of the drugs you mentioned.
11. Write the mechanism of action, uses and adverse effects of halothane
12. Classify the newer non-benzodiazepine hypnotics. What are their advantages over the older ones?
13. Describe how tricyclic antidepressants are beneficial in a case of depression. How does fluoxetine differ from TCA's in this respect?
14. Discuss briefly the mechanism of action, uses and adverse effects of lithium.
15. Discuss management of paracetamol poisoning.

16. Enumerate drugs used for treatment of Parkinsonism. Discuss the “On-Off” phenomenon in relation to Parkinson diseases.
17. Describe various types of drug dependence. Discuss briefly the deaddiction program in a chronic alcoholic patient.
18. Enlist various general anaesthetic agents. Discuss various factors affecting the speed and depth of anaesthesia.
19. Enlist various drugs from different categories for Parkinson’s disease. Describe the mechanism of action and side effects of Levodopa + Carbidopa.
20. Enlist various drugs from different categories for psychosis. Describe the mechanism of action and side effects of chlorpromazine.
21. Enlist various drugs for anxiety. Describe the mechanism of action and clinical uses of benzodiazepines
22. Describe with preferred agent the clinical uses of benzodiazepines.
23. Enlist commonly used selective serotonin reuptake inhibitors and their therapeutic uses. Describe briefly their merits and demerits as compared to tricyclic antidepressants.
24. Explain why pentazocine is avoided in morphine addict?

5 marks:

1. Enlist various drugs from different categories for Parkinson’s disease. Describe the mechanism of action of drugs you mentioned. Explain briefly “off & on” phenomenon in relation to drug therapy of the disease.
2. Classify various drugs acting on opioid receptors. Describe the therapeutic uses, adverse effects and precautions/contraindications of the drugs you have mentioned.
3. Enlist various drugs from different categories for Parkinson’s disease. Describe the mechanism of action of drugs you mentioned. Explain briefly “off & on” phenomenon in relation to drug therapy of the disease.
4. Classify various opioid drugs. Describe the therapeutic uses of morphine.
5. Name the different classes of drugs available for treatment of epilepsy. Describe the mechanism of action, uses and adverse effects of any two drugs from different class.
6. Classify various drugs acting on opioid receptors. Describe the therapeutic uses, adverse effects and precautions / contraindications of the drugs you have mentioned.
7. Enumerate opioid analgesics. Describe the therapeutic uses and adverse effects of morphine.
8. Enumerate antiepileptic agents. What is the Pharmacological basis of using phenytoin in grand mal epilepsy? Describe adverse effects and drug-drug interaction of phenytoin.
9. Enumerate five commonly used drugs for tonic-clonic seizures. Describe briefly the mechanism of action and adverse effects of each.
10. Enumerate various drugs/agents from different categories showing abuse/addiction potential. Describe briefly the drug therapy of two very commonly prevalent addiction in society.
11. Classify antiepileptic drugs. Describe the mechanism of action, therapeutic uses and adverse effects of valproic acid.

Cardiovascular system

1/2 marks:

1. Explain why sodium nitroprusside is contraindicated in patients with renal impairment.
2. Name two antihypertensive from different group which are safe during pregnancy.
3. How clonidine useful in hypertension
4. Enalapril may cause dry cough as an adverse reaction. The same is not seen with Losartan. Why?
5. What is Monday morning sickness?
6. Explain briefly the limitation of nifedipine as an antihypertensive agent.
7. Explain beta blocker should not be combine with verapamil.
8. By which mechanism of action, clonidine act as an antihypertensive agent?
9. Discuss pharmacotherapy pf congestive heart failure
10. Explain the mechanism of action of methyldopa in hypertension
11. Mention two drug interaction of nitrates
12. Enumerate the drug used in treatment of hypertensive emergency. Explain mechanism of action of any one of them.
13. Mention two cardiac glycosides and two indications.

3 marks:

1. Enumerate various drugs from different categories for treatment of angina pectoris. Describe how nitrates alter the oxygen handling by the heart (Exclude molecular mechanism of drug).
2. Classify various antihypertensive agents. Mention mechanism of action and ADRs of propranolol.
3. What is paradoxical tachycardia produced by quinidine? How can it be prevented?
4. Enlist various ACE inhibitors. Discuss the clinical uses and adverse effects of ACE inhibitors.
5. Discuss the role of cardiac glycosides in a patient with congestive cardiac failure.
6. Describe the clinical uses of sodium nitroprusside. Mention the mode of administration and precaution required in its use.
7. Classify various antiarrhythmic agents. Describe pharmacotherapy for atrial flutter and PSVT.
8. Enumerate inotropic drugs. Explain the mechanism of action of digoxin and its side effects.
9. Classify calcium channel blockers. Write their indications and contraindications in the treatment of hypertension

5 marks:

1. Enlist various drugs from different categories for treatment of mild to moderate hypertension. Explain briefly the mechanism of action & adverse effects of ACE inhibitors & calcium channel blocker

2. Explain the mechanism of action of enalapril. Describe therapeutic uses based on pharmacological action and adverse reactions of enalapril.
3. Enumerates various drugs useful in ischemic heart diseases. Give an account of mechanism of action, ADRs and uses of nitrates.
4. Classify various antihypertensive. Discuss general principles of drug therapy of hypertension (JNC-7th report guidelines)
5. Enumerate five commonly used drugs from different groups for treatment of congestive cardiac failure. Justify use of each drug for the same.

Kidney

1/2 marks:

1. What is diuretic resistance and mention its cause.
2. Write four uses of furosemide.
3. Enumerate two therapeutic uses of lactulose

3 marks:

1. Classify diuretics. Mention use and ADRs of hydrochlorothiazide.
2. Explain mechanism of action and adverse effects of thiazide diuretics.
3. Classify diuretics. Mention use and ADRs of furosemide.

5 marks:

1. Classify diuretics. Mention uses and side effects of thiazide and loop diuretics.

GIT

1 /2 marks:

1. Write the drug of choice, its route and time of administration in motion sickness in long journey
2. Mention two antimotility agents. Write two limitation of such agents.
3. Give four reasons with examples proving superiority of antacid combinations.
4. Mention two uses of omeprazole with pharmacological basis.
5. Name the acute reaction seen with metoclopramide. How it is managed?
6. Name two labyrinthian suppressants.
7. Enumerate two drugs from different groups used for morning sickness

3 marks:

1. Enumerate various drugs from different categories for peptic ulcer. Describe the drug therapy of relapse of peptic ulcer.
2. Enumerate various drugs from different categories for peptic ulcer. Describe the pharmacotherapy of GERD.
3. Discuss in detail different stages of dehydration due to diarrhoea. Describe in detail treatment of severe dehydration.
4. Enumerate five drugs from different groups used in peptic ulcer with their mechanism of action. Write briefly about treatment of H. pylori infection?

5. What is ORS? How will you prepare ORS at home? Describe their advantages.
6. Discuss Oral Rehydration Therapy in management of diarrhoea.
7. What is homemade ORS? Describe its advantages.
8. Enlist various drugs from different categories for peptic ulcer. Describe briefly the drug therapy of non-healing peptic ulcer.
9. Describe drug therapy for relapse of peptic ulcer.
10. Name four drugs for emesis that act by different mechanism. Describe mechanism of action, uses and adverse effects of each.

5 marks:

1. Classify various antiemetic. Describe in detail about mechanism of action, adverse effects and uses of prokinetic drugs.
2. Describe drug therapy of acid peptic diseases.

Blood

1/2 marks:

1. Why folic acid alone is not indicated to treat a patient of Pernicious Anaemia?
2. What is INR? Mention its clinical significance.
3. Iron is contraindicated in _____ type of anaemia.
4. Mention the clinical status and limitation of streptokinase.
5. Name drug of choice for pernicious anaemia with preferred route of administration.
6. Enumerate oral iron preparations. Which are the indications of parental iron therapy?
7. Which drug is used to treat iron deficiency anaemia?
8. Which is the antidote for acute iron poisoning?
9. What is a treatment of vitamin B12 deficiency?
10. Which vitamin B12 preparations are available to treat its deficiency?
11. What is the treatment for overdose of oral anticoagulant?
12. Write down 2 uses of Vita. K.
13. Name two direct thrombin inhibitors
14. Name antidote for heparin overdose with its dose and route of administration
15. Name antifibrinolytic drug and its one use

3 marks:

1. Enumerate HMG-CoA reductase inhibitors. Write their uses & adverse effects.
2. Enlist various anti-platelet drugs. Describe their mechanism of action & therapeutic status in clinical practice.
3. Enumerate drugs inhibiting platelet aggregation. Explain mechanism of action and basis of use of any two antiplatelet drugs in used coronary heart disease.
4. Enumerate advantages and disadvantages of five hypolipidemic drugs from different group
5. Enlist various indication of heparin. Discuss briefly how you will monitor anticoagulant therapy.
6. Describe with suitable examples the various types of anticoagulants in pharmacology and their uses in therapeutics.
7. Enumerate various indication of heparin. How will you monitor the anticoagulant therapy?

8. Enlist various anticoagulants. Discuss briefly the clinical and monitoring of anticoagulant therapy.
9. Write a brief note on each of the following:
 - a. Salmeterol
 - b. Iron sucrose
 - c. Warfarin
 - d. Lepirudin
10. Classify anticoagulants. Compare and contrast heparin and warfarin.

5 marks:

1. Classify anticoagulants. Describe mechanism of action, therapeutic uses and drug-drug interactions of warfarin
2. Enumerate various thrombolytic agents. Describe their indication, mechanism of action and precautions needed using them.

Antimicrobial

1/2 marks:

1. Why paracetamol is preferred over aspirin in child having viral infection?
2. Why chloramphenicol is rarely used in enteric fever?
3. Why pyridoxine is used along with INH in the treatment of pulmonary tuberculosis?
4. Why intravenous administration of quinine is preferred with 5% dextrose infusion?
5. Define MIC of antimicrobial agents. How it is derived?
6. Why the doses of Gentamicin is to be adjusted as per creatinine clearance value of the patient ?
7. Why is tetracycline selectively toxic to the microbes & not to the host cell?
8. How is the pharmacokinetic property of doxycycline & minocycline different from other tetracyclines.
9. Antiviral drugs are relatively more toxic than anti-bacterial drugs. Justify the statement based on their mechanism of action.
10. Name the first member of a new class of synthetic tetracycline analogue.
11. Name two important uses of neomycine
12. Mention any two uses of chloroquine besides malaria
13. Name two luminal amoebicidal drugs.
14. Write whether true or false regarding tetracyclines.
15. Cross resistance amongst different members of the tetracycline group is complete.
16. In renal failure doses of all tetracycline has to be decreased
17. Mention two topically useful antifungal agents.
18. What is the full form of DOTS? Mention one of its advantage.
19. Why is choloroquine useful in hepatic but not in intestinal amoebiasis?
20. What is chemoprophylaxis? Name two drugs used for chemoprophylaxis.
21. Define MIC of drug.
22. Why watch is kept on creatinine clearance, when gentamicin is use in an elderly patient?
23. Name with reason a fluoroquinolone not used for systemic infection and one not used for urinary tract infection
24. What is multibacillary leprosy? Write any two regimens to treat it

25. Write three regimens to treat typhoid infection
26. Mention two uses of Chloroquine other than malaria treatment
27. Co-trimoxazole is a combination of _____ & _____?
28. Mention four important uses of sulphonamide where they are used alone.
29. Why praziquantel is preferred to niclosamide in treatment of *Taenia solium* infestation?
30. What is 'relapse' in case of malaria? How will you prevent it?

3 marks:

1. Enumerate various drugs from different categories on the basis of life cycle of Plasmodium. Give complete oral and parenteral dosage schedule for the treatment of *P. vivax* type of malaria.
2. Enlist various Fluoroquinolones. Mention spectrum of activity, therapeutic uses and adverse effects of these antimicrobial agents.
3. Enumerate various drugs from different categories, which are useful in pseudomonas infection. What are the problems associated with administration of carbenicillin?
4. Classify various antimalarial drugs as per different stages of life cycle of malarial parasite. Give complete dosage schedule of chloroquine for *P. vivax* malaria for a person who is going from endemic to nonendemic area.
5. Classify beta-lactams antibiotics. Describe the therapeutic uses, adverse effects and limitations of aminopenicillins.
6. Classify antiamebic drugs. Write the mechanism of action of nitroimidazole group along with uses, adverse effects & contraindications.
7. Describe additive, supra-additive & antagonistic combinations of antimicrobials with suitable examples.
8. Write the mechanism of action, adverse effects and uses of rifampin.
9. Enlist drugs used in 'chloroquine resistant malaria'. Describe mechanism of action, adverse effects & current clinical status of any one class of drugs.
10. Describe in brief importance of drugs used as first line drug therapy for pulmonary tuberculosis.
11. Enumerate various drugs from different categories used for amoebiasis. Discuss mechanism action, uses and adverse effects of metronidazole.
12. Enumerate drugs used for treatment of Malaria. Discuss treatment strategies for chloroquine resistant *P. falciparum* malaria
13. What is DOTS? Describe short term regimen for tuberculosis. Mention at least one adverse effects of each drug mention
14. Describe clinical uses, adverse effects and interactions of each of the following:
 - a. Ciprofloxacin
 - b. Metronidazole
15. Compare and contrast between penicillin and amoxicillin
16. Justify the use of each of the following combination:
 - a. Trimethoprim + sulphamethoxazole as antimicrobial agent
 - b. Pyrimethamine + sulfadoxine as antimalarial agent.
17. Enumerate penicillin group of drugs. What are the advantages of newer penicillins over benzyl penicillin?
18. Give various ways of classification of antimicrobial agents giving suitable examples. Enlist various reasons leading to failure of chemotherapy.

19. What is “post exposure prophylaxis” (PEP)? Write two NACO recommended regimens for PEP
20. Explain, with diagram, the steps of bacterial protein synthesis and the drugs affecting them

5 marks:

1. Classify various drugs from different categories for HIV. Mention briefly the guidelines for HIV treatment and various therapeutic regimens for the same.
2. Discuss the drug treatment of various sexually transmitted diseases.
3. Write the classification of antimalarial drugs. Write the drug treatment strategy according
4. to the stages and forms of the malarial parasite. Also, explain the difference between casual prophylaxis & suppressive prophylaxis and clinical cure & radical cure.
5. Describe in detail the drug treatment of category I in tuberculosis. Mention the mechanism action and adverse effects of each you mention.
6. Describe the drug therapy of various STD in clinical practice. (Do not include treatment of AIDS).
7. Discuss various points which are considered while selecting an antibiotic
8. Enumerate various tetracyclines. Describe pharmacodynamics and pharmacokinetic properties, side effects and clinical uses of drugs mentioned by you.
9. Describe drug therapy of P. Falciparum malaria.
10. Classify fluoroquinolones. Describe the mechanism of action, therapeutic uses and adverse effects of any one fluoroquinolone
11. Enumerate various aims of planning a regimen for treatment of tuberculosis. Describe briefly the problem of MDR tuberculosis and its management
12. Describe antimicrobial drug resistance in detail with suitable examples. What are the measures to prevent the emergence of antimicrobial drug resistance?

Chemotherapy

3 marks:

1. Describe various adverse effects of anticancer drug therapy in general