

2106000102020101-S
EXAMINATION MARCH-APRIL 2024
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY
(SECOND YEAR)
PHARMACOLOGY (PAPER - I) - LEVEL 2 OMR

[Time: As Per Schedule]

[Max. Marks:100]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)**
 - b. Name of the Subject : **PHARMACOLOGY (PAPER – I)-LEVEL 2 OMR**
 - c. Subject Code No : **2106000102020101-S**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. Answers should be precise and to the point.
5. Give examples and figures if needed.
6. First 20 mins have been allotted to solve multiple choice Questions.

Seat No:

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Student's Signature

Section I**Q.1 Multiple choice questions (MCQs)****1*20=20****Instructions:**

1. Encircle the most appropriate answer.
2. Each question carries one mark and there is no negative marking.
3. Overwriting is not allowed.

1. Acidic drugs bind to :

- | | |
|------------|---------------------|
| a. Albumin | b. β Globulin |
| c. Enzyme | d. Receptor |

2. A highly ionized drug:

- a. Is excreted mainly by the kidney
- b. Can cross the placental barrier easily
- c. Is well absorbed from the intestine
- d. Accumulates in the cellular lipids

3. At toxic doses, zero order kinetics is seen in:
 - a. Penicillin
 - b. Phenytoin
 - c. Valproate
 - d. Carbamazepine
4. Which of the following has cytoplasmic receptor:
 - a. Epinephrine
 - b. Insulin
 - c. FSH
 - d. Cortisol
5. Therapeutic monitoring of plasma level of drug is done when using all of the following drugs except:
 - a. Warfarin
 - b. Gentamycin
 - c. Phenytoin
 - d. Cyclosporine
6. In which phase of clinical trials, post-marketing surveillance of a drug is carried out:
 - a. Phase I
 - b. Phase II
 - c. Phase III
 - d. Phase IV
7. Synaptic transmitter in the autonomic ganglion is:
 - a. Adrenaline
 - b. Dopamine
 - c. Acetylcholine
 - d. Noradrenaline
8. All are cholinergic agents EXCEPT:
 - a. Galantamine
 - b. Donepezil
 - c. Tacrine
 - d. Memantine
9. Methylphenidate is drug of choice for:
 - a. Obsessive compulsive disorder
 - b. ADHD (attention deficit hyperkinetic disorder)
 - c. Enuresis
 - d. Autism
10. All of the following are therapeutic uses of prazosin, except:
 - a. Peripheral vascular disease
 - b. Pheochromocytoma
 - c. Lupus Erythematosus
 - d. Scorpion sting

11. Ethosuximide can be used for the treatment of:
- Generalized tonic clonic seizures
 - Absence seizures
 - Complex seizures
 - Myoclonic seizures
12. Neural tube defect is an adverse effect of:
- Valproate
 - Phenytoin
 - Diazoxide
 - None
13. Anti-Parkinsonism drug that is a selective COMT inhibitor:
- Entacapone
 - Ropinirole
 - Pergolide
 - Pramipexole
14. Drug useful in malignant hyperthermia is:
- Halothane
 - Succinyl choline
 - Dantrolene
 - Haloperidol
15. Which of the following drug is not an opioid agonist?
- Heroin
 - Ketamine
 - Methadone
 - Codeine
16. Which of the following increases uric acid excretion?
- Allopurinol
 - Aspirin
 - Colchicine
 - Probenecid
17. Most common cause of Mobius syndrome is use of which of the following drug in pregnancy?
- Misoprostol
 - Thalidomide
 - Methotrexate
 - Dinoprostone
18. Gastric lavage is contraindicated in :
- Salicylate poisoning
 - Kerosene poisoning
 - Morphine poisoning
 - Organophosphate poisoning
19. For preanesthetic medication all of the drugs can be used except:
- Diazepam
 - Glycopyrrolate
 - Metoclopramide
 - Phenobarbitone

20. Antihistaminic used for motion sickness is:

- | | |
|-----------------|-----------------|
| a. Cetirizine | b. Meclizine |
| c. Promethazine | d. Fexofenadine |

Q.2 Answer in short [any five]:

[3*5=15]

- Write a note on rational use of medicines.
- What is microsomal enzyme induction? Describe possible consequences of microsomal enzyme induction with examples.
- Explain potency and efficacy with the help of a suitable diagram.
- Mention the uses of anticholinergic drugs.
- Discuss the side effects and contraindications to propranolol.
- Give pharmacological basis for use of adrenaline in anaphylactic shock.

Q.3 Write answers in details [any three]:

[5*3=15]

- Describe mechanism of action and adverse effects of any 3 drugs from different groups used in treatment of glaucoma.
- Describe the process of synthesis, storage, release and uptake of catecholamine.
- Classify anti-cholinesterases. Describe the pharmacotherapy of organophosphorus poisoning.
- Define Adverse drug reaction and pharmacovigilance. Describe teratogenicity in detail.

Q.4 Case based questions:

[10*1=10]

A 35-year-old man complains of breathlessness for 1 month which is increasing in frequency with 3-4 attacks per week. Breathlessness is seen while doing his day-to-day activities. Patient is provisionally diagnosed as moderate persistent bronchial asthma. He is prescribed Metered dose inhaler of formoterol and budesonide.

- a. What is the advantage of combining formoterol and budesonide in this patient? 2
- b. Mention the advantages of giving the above drugs in metered dose inhaler as compared to oral route. 2
- c. Which side effects can occur in this patient due to the prescribed drugs? 2
- d. If this patient brought to emergency department as 'status asthmaticus' what treatment should be given? 4

Section II

Q.5 Answer in short [any five]: [3*5=15]

- a. Write a note on bioavailability of a drug.
- b. Classify drugs used in cough. Describe dextromethorphan in short.
- c. Describe the treatment of methyl alcohol poisoning.
- d. Enumerate second generation antihistaminics. Mention their uses.
- e. Write a note on prophylaxis of migraine.
- f. Enlist selective serotonin reuptake inhibitors and their therapeutic uses.

Q.6 Write answers in details [any three]: [5*3=15]

- a. Classify Nonsteroidal anti-inflammatory drugs (NSAIDs). Describe uses and adverse effects of aspirin.
- b. Compare and contrast benzodiazepines and barbiturates.
- c. Enumerate commonly used drugs for generalized tonic clonic seizure. Describe briefly the mechanism of action and adverse effects of any two of them.
- d. Classify antirheumatoid drugs. Describe mechanism of action and adverse effects of any three DMARDS (Disease modifying antirheumatic drugs).

Q.7 Case based questions:**10*1=10**

► A 30 years old man had a gradual onset of delusions and auditory hallucinations. He was diagnosed as schizophrenia by a psychiatrist and started him on tab. Haloperidol 2mg twice daily. A few weeks later although he improved clinically, he developed stiffness and rigidity of upper and lower limbs. He was diagnosed as drug induce parkinsonism.

- a) Explain the basis of drug induced parkinsonism. Which drug should be started in this patient for treatment of drug induced parkinsonism? Why? **1+1+2**
- b) Describe the adverse effects of the drug used for this patient. **4**
- c) Enumerate antipsychotic drugs which have less chances of drug induced Parkinsonism and can be used in this patient. **2**
