SEM-IV - 2022-23

Paper / Subject Code: 69114 / Pharmacology- I

Duration: 3 Hrs **Total marks: 75**

N.B. : 1. All questions are compulsory.
2. Figures to right indicate full marks

Q. 1. Multiple Choice Questions (MCQs) (Answer all the questions). **20**

1. The advantages of oral route include_____.
a. It can be given to unconscious patient
b. Medicament needs to be sterile
c. It is noninvasive
c. It is expensive

2 Agonist is _____.
a. An agent which activates a receptor to reduce submaximal effect but antagonizes the action of a full agonist
b. An agent which prevents the action of an agonist on a receptor or the subsequent response, but does not have any effect of its own
c. An agent which activates a receptor to produce an effect in the opposite direction to that of the agonist
d. An agent which activates a receptor to produce an effect similar to that of the physiological signal molecule

3. The extent of separation of DRCs of a drug for different effects is a measure of its _____.
a. Safety
b. Potency
c. Therapeutic effect
d. Selectivity

4. The receptor that mediates its action in milliseconds is_____
a. Ion channel receptors
b. GPCR
c. Transmembrane enzyme-linked receptor
d. Receptors regulating gene expression

5. Prazosin is a _____
a. Alpha 2 selective blocker
b. Beta 1 selective blocker
c. Alpha 1 selective blocker
d. Nonselective blocker

6. Which of the following statement is correct for Atropine?
a. It produces miosis
b. It is safer in elderly males
c. It is used in the treatment of Glaucoma
d. It is the specific antidote for anti-ChE poisoning

7. The _____ is a preanesthetic medicine
a. Opioids
b. Antipsychotics
c. Antidiarrhoeal
d. Antiepileptics

8. The mechanism of disulfiram is_____.
a. Aldehyde dehydrogenase inhibitor
b. Aldehyde dehydrogenase inducer
c. Alcohol dehydrogenase inhibitor
d. Alcohol dehydrogenase inducer

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9. The _____ drug is preferred in treatment of mania
a. Moclobomide
b. Propranolol
c. Lidocaine
d. Lithium

10. The only neuroprotective agent useful in treatment of Parkinson's disease is_____
a. Monoamine oxidase inhibitor
b. Monoamine oxidase B inhibitor
c. Catechol O methyl transfer inhibitor
d. Dopa decarboxylase inhibitor

11. The transport that carries a solute across the membrane against its concentration gradient is_____.
a. Facilitated diffusion
b. Active transport
c. Passive diffusion
d. Filtration

12. Alteration of the action of one drug at the target site by another drug, independent of a change in its concentration is called as____.
a. Pharmacokinetic interaction
b. Tachyphylaxis
c. Pharmacodynamic interaction
d. Adverse drug reaction

13. At the muscle end-plate, d-tubocurarine reduces the:
a. Number of Na+ channels
b. Duration for which the Na+ channels remain open
c. Ion conductance of the open Na+ channel
d. Frequency of Na+ channel opening

14. Monoamine oxidase exerts _____ side effect
a. Serotonin syndrome
b. Wine reaction
c. Brain zaps
d. Postural hypotension

15. Buspirone acts mainly acts on _____ receptor
a. 5HT
b. GABA
c. Adrenaline
d. Dopamine

16. This class of drugs specifically stimulate respiration.
a. Convulsants
b. Psychostimulants
c. Analeptics
d. Cerebroactive drugs

17. An example of Phase II reaction is_____.
a. Cyclization
b. Glucuronide conjugation
c. Hydrolysis
d. Reduction

18. An unwanted effect of a drug that occurs at therapeutic dose is called _____.
a. Intolerance
b. Secondary effect
c. Toxic effect
d. Side effect

19. Ethanol is used in methanol poisoning because it_____.
a. Antagonises the actions of methanol
b. Stimulates the metabolism of methanol and reduces its blood level
c. Inhibits the metabolism of methanol and generation of toxic metabolite
d. Replenishes the folate stores depleted by methanol

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20. Field block anesthesia is a _____type of local anesthetic technique
a. Infiltration anesthesia
b. Surface anesthesia
c. Conduction block anesthesia
d. Spinal anesthesia

2. **Long Answers (Answer 2 out of 3)** 20
A. What are the different principles of drug action? Explain the signal transduction mechanism for transmembrane enzyme linked and JAK-STAT binding receptors.
B. Define sympathomimetics. Classify them and add a detailed note on the pharmacology of Adrenaline.
C. Classify antiepileptics. Discuss in detail mechanism and adverse effect of phenytoin and valproic acid

3. **Short Answers (Answer 7 out of 9)** 35
A. What is excretion? Explain the renal excretion in detail.
B. Enlist various factors modifying drug actions. Explain any two in detail.
C. Write a note on receptor antagonism.
D. Discuss the mechanism of action, uses, and side effects of Beta blockers.
E. Classify local anaesthetics. Discuss its mechanism of action.
F. Discuss the factors governing the induction and recovery of volatile anesthetics
G. Compare and contrast between benzodiazepines and barbiturates.
H. Discuss the pharmacological actions of Morphine.
I. Give an account of anticholinesterase in treatment of Alzheimer's disease

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