







- 1. What are the two types of pharmacological antagonists?
- a) Competitive and noncompetitive
- b) Reversible and irreversible
- c) Surmountable and nonsurmountable
- d) Affinity and efficacy
- 2. What is the main difference between a competitive antagonist and a noncompetitive antagonist?
- a) Competitive antagonists bind irreversibly to the receptor.
- b) Noncompetitive antagonists compete with the agonist for the same recognition site.
- c) Competitive antagonists prevent the activation of the receptor by the agonist.
- d) Noncompetitive antagonists can be displaced by excess agonist.
- 3. Which antagonist causes a parallel shift to the right in the log dose-response curve?
- a) Atropine
- b) Phenoxybenzamine
- c) Buprenorphine
- d) Neostigmine
- 4. What are the characteristics of a partial agonist?a) High efficacy and slow rate of association
- b) No affinity and high efficacy
- c) Moderate efficacy and slow rate of dissociation
- d) No effect in the presence of an agonist



- 5. What happens to the number of receptors when an agonist binds?
- a) The number of receptors decreases.
- b) The number of receptors increases.
- c) The number of receptors remains constant.
- d) The number of receptors cycles between internalization and externalization.
- 6. Which type of ion channels can be modulated by local anesthetics?
- a) Voltage-gated ion channels
- b) ATPase-sensitive ion channels
- c) Ligand-gated ion channels
- d) Ion channels modulated by G protein-linked receptors
- 7. How do drugs acting on enzymes inhibit their function?
- a) By activating enzyme systems
- b) By increasing the synthesis of enzymes
- c) By inhibiting the activity of enzymes
- d) By promoting the degradation of enzymes
- 8. Which subcellular structure does colchicine disrupt?
- a) Mitochondria
- b) Golgi apparatus
- c) Endoplasmic reticulum
- d) Microtubules



- 9. What is the main purpose of demulcents?
- a) To coat intestinal mucosa
- b) To lubricate the digestive system
- c) To neutralize stomach acid
- d) To inhibit bacterial protein synthesis
- 10. How does chelation therapy work in heavy metal poisoning?
- a) It neutralizes the toxic effects of heavy metals.
- b) It promotes the excretion of heavy metals.
- c) It inhibits the synthesis of heavy metals.
- d) It enhances the absorption of heavy metals.



Answer Key:

- 1. a) Competitive and noncompetitive
- 2. b) Noncompetitive antagonists compete with the agonist for the same recognition site.
- 3. a) Atropine
- 4. c) Moderate efficacy and slow rate of dissociation
- 5. a) The number of receptors decreases.
- 6. a) Voltage-gated ion channels
- 7. c) By inhibiting the activity of enzymes
- 8. d) Microtubules
- 9. a) To coat intestinal mucosa
- 10. b) It promotes the excretion of heavy metals.

Done by anas Zakarneh