

Select the only best answer (2% each, 0.5% penalty for each incorrect answer)

1. The antidote for intoxication of acetaminophen (Panadol) is:
  - A. ethylene glycol.
  - B. acetylcystein.
  - C. penicillamine.
  - D. dimercaprol.
  - E. none of the above.
2. The action site for lovastatin is:
  - A. acetyl transferase.
  - B. decrease of VLDL secretion.
  - C. HMG-Co A reductase.
  - D. HVA-Co A oxidase.
  - E. none of the above.
3. Tranexamic acid is used in clinics for:
  - A. Hyperlipidemia.
  - B. Thrombolytic drug.
  - C. Hypoglycemia.
  - D. Antifibrinolysin.
  - E. None of the above.
4. Edrophonium (Tensilon) would facilitate the initial relaxant effect of:
  - A. Tubocurarine.
  - B. Vecuronium.
  - C. Atracurium.
  - D. Pancuronium.
  - E. None of the above.
5. Treatment of a staphylococcal infection is an appropriate use in clinics for each of the following drugs **EXCEPT**:
  - A. Metronidazole.
  - B. Erythromycin.
  - C. Cefazolin.
  - D. Vancomycin.
  - E. None of the above.
6. Daily use of this substituted phenol results in a deposit on the skin that is bacteriostatic and this compound may be absorbed and has caused neurotoxic effects in neonates is:
  - A. Chlohexidine.
  - B. Gential violet.
  - C. Chloramine-T.
  - D. Hexachlorophene.
  - E. None of the above.

7. Captopril and enalapril do all of the followings **EXCEPT**:
- A. Inhibit an enzyme named as ACE.
  - B. Displace the angiotensin at its receptor.
  - C. Increase renin level in the blood.
  - D. Decrease angiotensin II level in the blood.
  - E. None of the above.
8. The clinical application of beta-adrenolytic drugs is:
- A. Thyroid storm.
  - B. Glaucoma.
  - C. Migraine.
  - D. Hypertension.
  - E. All of the above.
9. All of the following statements about L-DOPA are true **EXCEPT**:
- A. Phenothiazines are contraindicated.
  - B. Early side effects include nausea vomiting.
  - C. Carbidopa is often given in combination with L-DOPA.
  - D. MAO inhibitors are contraindicated.
  - E. It causes hypertension
10. Which of the following is an antidepressant agent that selectively inhibits serotonin (5-HT) uptake with minimal effect on norepinephrine uptake?
- A. Protriptyline.
  - B. Maprotiline.
  - C. Fluoxetine.
  - D. Desipramine.
  - E. Amoxapine.
11. Which of the following drugs stimulates prolactin release?
- A. Bromocryptine
  - B. L-DOPA
  - C. Phenobarbital
  - D. Chlorpromazine
  - E. Diazepam
12. All of the following statements are true about triazolam **EXCEPT**:
- A. It binds to benzodiazepines receptor, enhancing GABA-mediated chloride influx.
  - B. It is useful in the treatment of insomnia.
  - C. It enhances the activity of the drug-metabolizing microsomal system.
  - D. Combined with ethanol, it may produce significant respiratory depression.
  - E. Adverse effects may include drowsiness, dizziness, lethargy and ataxia.
13. Withdrawal from amphetamine is characterized by:
- A. Anorexia.
  - B. Excess food intake.
  - C. Insomnia.
  - D. Overexcitability.
  - E. None of the above.

14. Which of the following compounds is a competitive antagonist of glycine receptor and can cause convulsion?
- A. Picrotoxin
  - B. Pentylentetrazole
  - C. Doxapram
  - D. Bicuculline
  - E. Strychnine
15. Which of the following is a selective inhibitor of monoamine oxidase B useful in the treatment of parkinsonism?
- A. Deprenyl
  - B. Carbidopa
  - C. Bromocriptine
  - D. Tranylcypromine
  - E. Phenelzine
16. All of the following statements are true about ethanol **EXCEPT**:
- A. It is a hepatotoxic agent.
  - B. It elevates body temperature by peripheral vasoconstriction.
  - C. It suppresses the release of antidiuretic hormone.
  - D. It can lead to gastritis and pancreatitis.
  - E. Acute overdose can cause acidosis, hypoglycemia and elevated intracranial pressure.
17. The preferred treatment of status epilepticus is intravenous administration of
- A. Chlorpromazine.
  - B. Diazepam.
  - C. Desipramine.
  - D. Ethosuximide.
  - E. Tranylcypromine.
18. Fatty acid cyclooxygenase is an enzyme which leads to the formation of prostaglandins. Which of the following drugs directly inhibits the enzyme activity?
- A. Dexamethasone.
  - B. Nitroprusside.
  - C. Diphenhydramine.
  - D. Aldosterone.
  - E. Indomethacin.
19. Theophylline is useful in asthma because
- A. It has no significant effects on the heart.
  - B. It decrease intracellular calcium in bronchial smooth muscle.
  - C. It is inactive by the oral route.
  - D. It increases cAMP without desensitizing receptors in bronchioles.
  - E. It is a potent stimulant of beta receptors.

20. Which of the following has a rapid diuretic effect, plus smooth muscle effects that make it useful in the treatment of acute pulmonary edema?
- A. Furosemide.
  - B. Acetazolamide.
  - C. Triamterene.
  - D. Spironolactone.
  - E. Thiazide diuretic.
21. Uric acid is formed from hypoxanthine by xanthine oxidase. The enzyme activity is inhibited by
- A. Hydrocortisone.
  - B. Allopurinol.
  - C. Probenecid.
  - D. Sulfipyrazone.
  - E. Phenylbutazone.
22. Antihistamines ( $H_1$ ) have various clinical uses including
- A. decreasing gastric secretion in peptic ulcer.
  - B. treatment of a severe bronchial asthma attack.
  - C. prophylaxis and treatment of motion sickness.
  - D. increasing blood flow to the extremities in peripheral vascular disease.
  - E. treatment of cardiac arrhythmias.
23. A polypeptide that causes increased capillary permeability and edema is
- A. Angiotensin I.
  - B. Saralasin.
  - C. Angiotensin II.
  - D. Bradykinin.
  - E. Captopril.
24. Activation of plasminogen to plasmin
- A. is brought about by heparin given orally.
  - B. is brought about by streptokinase given parenterally.
  - C. can be reversed by administration of vitamin  $K_1$  oxide.
  - D. is used preoperatively and during surgery in patients prone to deep vein thrombosis, e.g., the elderly with hip fractures.
  - E. is brought about by warfarin given orally.
25. Increased levels of which of the followings may be associated with the decreased risk of atherosclerosis?
- A. Very low density lipoproteins.
  - B. Chylomicrons.
  - C. Lp(a) lipoproteins.
  - D. Intermediate-density lipoproteins.
  - E. High-density lipoproteins.

26. Which of the following drugs is beneficial in the therapy of thrombus formation?
- A. Acetaminophen.
  - B. Indomethacin.
  - C. Ibuprofen.
  - D. Dexamethasone.
  - E. Acetylsalicylic acid.
27. Dipyridamole is used as an anti-platelet drug because
- A. it inhibits phospholipases in platelets.
  - B. it stimulates adeny cyclase in platelets.
  - C. it inhibits fatty acid cyclooxygenase in platelets.
  - D. it inhibits thromboxane synthase in platelets.
  - E. it inhibits phosphodiesterase in platelets.
28. Which of the following demonstrations about intravenous anesthetics is CORRECT?
- A. Ketamine is the best choice for anesthesia in intraocular surgery.
  - B. Fentanyl may produce respiratory depression, which can be reversed by naloxone.
  - C. Due to potent analgesic and muscle relaxant effects, thiobarbiturates are frequently used in general anesthesia.
  - D. Like apomorphine, droperidol is a potent emetic agent. Once intoxicated, the antagonist should be given.
  - E. The duration of unconsciousness in barbiturates-induced anesthesia is dependent on the rate of distribution of the drugs from the brain to the other part of the body.
29. Which of the following statements about inhalational anesthesia is TRUE?
- A. Most of inhalational anesthetics may increase cerebral blood flow and brain  $pCO_2$
  - B. Halothane may produce tachycardia.
  - C. Nitrous oxide may increase myocardial oxygen consumption.
  - D. Long-termed application of haloxane may cause hearing loss.
  - E. Methoxyflurane may produce hepatotoxicity.
30. Which of the following inhalational anesthetics possesses most potent analgesic and skeletal muscle relaxant effects?
- A. Isoflurane
  - B. Haloxane
  - C. Enflurane
  - D. Cyclopropane
  - E. Methoxyflurane
31. Opioid-induced miosis and spinal anesthesia are mediated by
- A.  $\mu_1$  receptors and  $\mu_2$  receptors.
  - B.  $\mu_2$  receptors only.
  - C.  $\sigma$  receptors only.
  - D.  $\kappa$  receptors only.
  - E.  $\delta$  receptors only.

32. Which of the following statements about opioids is FALSE?
- A. Tolerance and physical dependence develop more slowly with methadone than with morphine.
  - B. Morphine may have minimal or no tolerance to constipation.
  - C. Morphine induced miosis can not be blocked by atropine.
  - D. Stroke or spinal cord injury can be treated with opioid antagonists.
  - E. Opioid agonists are contraindicated to MAOI users.
33. The inhibitory effect of ouabain on gastric secretion is due to its blockade of
- A.  $H^+ - K^+$  ATPase.
  - B.  $Na^+ - K^+$  ATPase.
  - C. Carbonic anhydrase.
  - D.  $Ca^{++}$  channels.
  - E.  $Cl^-$  conduction.
34. In order to achieve rapid control of severe ketoacidosis in a hospitalized diabetic 5-year-old boy, the appropriate antidiabetic agent to use is
- A. Isophane (NPH) insulin.
  - B. Glyburide.
  - C. Tolbutamide.
  - D. Protamine zinc or ultralene insulin.
  - E. Crystalline zinc insulin.
35. The following chemicals possesses gastric mucosal cytoprotection, EXCEPT
- A. carbenoxolone.
  - B. prostaglandin  $E_2$ .
  - C. sucralfate.
  - D. cimetidine.
  - E. bismuth chelate.
36. All the following antibiotics act on bacterial cell wall EXCEPT
- A. Bacitracin.
  - B. Vancomycin.
  - C. Cycloserine.
  - D. Tobramycin.
  - E. Ristocetin.
37. Which of the following agents can interrupt DNA chains of HIV (human immunodeficiency virus)?
- A. INH
  - B. FCCP
  - C. AZT
  - D. PAS
  - E. CCCP

38. All the following agents contain amine sugars in glycosidic linkage **EXCEPT**
- A. Streptomycin.
  - B. Tobramycin.
  - C. Polymyxin.
  - D. Gentamicin.
  - E. Amikacin.
39. Pencillin is the first choice in the treatment of
- A. Atypical pneumonia.
  - B. Syphilis.
  - C. Klebsiella pneumonea.
  - D. Hashimoto disease.
  - E. None of the above.
40. The major side effect of oral contraceptive is
- A. diabetes mellitus.
  - B. hypertension.
  - C. thrombophlebitis.
  - D. multiple birth.
  - E. hypercholesterolemia.
41. All the mechanisms of resistance to antimicrobial drugs are correct, **EXCEPT**
- A. transduction.
  - B. transformation.
  - C. conjugation.
  - D. transposition.
  - E. none of the above.
42. Which of the properties of erythromycin is **INCORRECT**?
- A. treated in atypical pneumonia
  - B. a macrolide antibiotic
  - C. acts on the bacterial DNA
  - D. diffuses rapidly into tissues and distributes in total body water
  - E. none of the above
43. The purpose of the combination of amoxicillin and clavulanic acid is
- A. to inhibit penicillinase.
  - B. to prevent resistant strain.
  - C. to prevent synergism.
  - D. to inhibit tubular secretion.
  - E. to prevent hypersensitivity.

44. The clearance of theophylline for a 60 kg nonsmoking male patient is 0.2 L/kg/hr and volume of distribution is 0.5 L/kg. To achieve a plasma concentration of 15 mg/L immediately, what is the appropriate loading dose?
- A. 450 mg
  - B. 180 mg
  - C. 450 mg/hr
  - D. 180 mg/hr
  - E. none of above
45. Acetylcholine is known to exert its action on neuron through:
- A. increasing mRNA of the cell.
  - B. tyrosine phosphorylation of a transmembrane enzyme.
  - C. affecting ion channels.
  - D. the cAMP second messenger pathway.
  - E. the  $Ca^{++}$ /phosphoinositide signaling pathway.
46. Each of the following antiarrhythmic agents is correctly matched with an appropriate untoward effect **EXCEPT**
- A. quinidine-cinchonism
  - B. procainamide-hypotension with intravenous administration
  - C. lidocaine-systemic lupus erythematosus-like syndrome
  - D. disopyramide-untoward anticholinergic effects
  - E. bretylium-orthostatic hypotension
47. Therapeutic uses for propranolol include
- I. atrial fibrillation
  - II. atrial flutter
  - III. paroxysmal atrial tachycardia
  - IV. ventricular arrhythmias
- A. I, II, & III
  - B. I & III
  - C. II & IV
  - D. IV only
  - E. I, II, III, & IV
48. Tamoxifen induces the most favorable response in which of the following forms of cancer?
- A. Breast cancer
  - B. Testicular cancer
  - C. Ovarian cancer
  - D. Cervical cancer
  - E. Kaposi's sarcoma
49. All of the following statements about Fick's law as it pertains to simple diffusion are true **EXCEPT**
- A. the greater the concentration gradient, the greater the rate of absorption.
  - B. the smaller the surface area, the greater the drug flux.
  - C. the greater the lipid-water partition coefficient, the greater the drug flux.
  - D. diffusion constant is directly proportional to the temperature.
  - E. diffusion constant is inversely related to the molecular size.
50. Pharmacologic doses of glucorticoids can result in all the following effects **EXCEPT**
- A. stimulation of leucocyte migration.
  - B. stabilization of lysosomal membranes
  - C. reduced activity of fibroblasts.
  - D. reversal of a histamine stimulated increase in capillary permeability.
  - E. inhibited antibody synthesis.