1. **Which one of the following is incorrect?**
   (a) Chemical name of drug is very long and not commonly preferred by physicians
   (b) Drug prescribed by their generic names are usually cheaper than their brand names
   (c) Drug and medicine have same meaning
   (d) Clinical pharmacology is a study of drugs on human

2. **Which one of the following is correct?**
   (a) Close intra-arterial injection for contrast media in angiography is a type of local route
   (b) Streptomycin is given orally
   (c) Oral route is best suitable for emergency
   (d) Generic names are given by pharmaceutical industry

3. **Which one of the following is not given by sublingual route?**
   (a) Nitroglycerine  (b) Isoprenaline
   (c) Clonidine  (d) Insulin

4. **Which of the following can be given perfectly?**
   (a) Nitroglycerine  (b) Penicillin
   (c) Levodopa with carbidopa
   (d) Paraldehyde

5. **Transdermal drug delivery system is important because it has property of all except**
   (a) Delivers drug at constant rate
   (b) First pass metabolism of drug is less than oral
(c) Provide smooth plasma concentration of drugs
d(d) More suitable for lipid insoluble drugs

6. Which of the following is incorrect?
(a) Depot preparation can be made only by intramuscular route
(b) Drugs given I.V. has 100% bioavailability
(c) Intradermal injection produces bleb formation
(d) Dermojet method does not use needle

7. Character of biological membranes are all except
(a) Bilayer of phospholipids and cholesterol
(b) Hydrophilic portion of the membrane is outside
(c) Intrinsic proteins are present in the membrane
(d) More permeable for the ionized molecules

8. Which is correct?
(a) pKa is equal to the pH at which the drug is 50% ionized
(b) Passive diffusion of drugs is rarely utilized mode of transport
(c) Alteration of pH does not alter transport of drugs
(d) Chloroquine, atropine, ephedrine are weak acidic drugs

9. Which is an incorrect statement?
(a) Basic drugs attain higher concentration extracellularly
(b) Active transport requires energy
(c) Facilitated diffusion does not require energy
(d) P-glycoproteins work as transporter

10. Which is an incorrect statement?
(a) Enteric coated tablets have acid resistant coating
(b) Highly ionized drugs are poorly absorbed through oral route
(c) Absorption through subcutaneous route may be increased by adding hyaluronidase
(d) Contraceptives and digoxin do not show enterohepatic cycling

11. Blood brain barrier has all characteristics except
(a) An investment of neural tissue
(b) Permeable more for lipid soluble drugs
(c) Deficient at CTZ
(d) Dopamine freely enters through BBB

12. Drug having higher plasma protein binding capacity than others
(a) Sulfadoxine (b) Sulfamethoxazole
(c) Sulfadiazine (d) Sufisoxazole

13. Which one of the following drug gets deposited in retina?
(a) Chloroquine (b) Tetracycline
(c) Thiopentone sodium (d) Digoxin

14. Active metabolite of phenacitine is
(a) Dimethadione (b) Canrenone
(c) Paracetamol (d) Trimethadione

15. Pro-drug of 5-aminosalicylic acid is
(a) Acetylsalicylic (b) Methylsalicylic acid
(c) Proguanil (d) Sulfasalazine

16. Pro-drug Levodopa convert in body into
(a) Methyldopa (b) Ethyldopa
(c) Carbidoa (d) Dopamine

17. Which statement is not true?
(a) Enalapril is a pro-drug
(b) Bacampicillin converts in body into ampicillin
(c) Prednisolone is prodrug of prednisone
(d) Diazepam produces active metabolite oxazepam
18. Which statement is most inappropriate?
(a) Cytochrome P450 are of multiple family and sub family
(b) There is inter individual variations regarding presence of Cytochrome P450 enzymes
(c) Oxidation reactions are considered as most important drug metabolizing reactions belonging to Phase I reactions
(d) Oxidative reactions are mostly carried out at kidney

19. Synthetic reactions are
(a) Also called as phase II reactions
(b) Reduction (c) Hydrolysis
(d) Cyclization

20. Which one is false about glucuronide conjugation reactions?
(a) Glucuronic acid is derived from glucose
(b) Most important synthetic reactions
(c) Catalyzed by microsomal enzymes
(d) Only utilized by drugs not by the endogenous body metabolites

21. Which one is true about microsomal enzymes?
(a) Located at smooth endoplasmic reticulum
(b) Primarily present at lungs
(c) Not inducible by drugs, diet, and other factors
(d) Types are flavoprotein oxidase, esterase, amidase, etc.

22. Which statement is not true?
(a) All drugs follow phase I followed by phase II reactions
(b) Some drugs may directly show the phase II reactions
(c) Some drugs may not undergo biotransformation and excreted as such
(d) Hoffman elimination refers to inactivation of drug by spontaneous molecular rearrangement without enzymes

23. Which statement is false?
(a) Induction of enzymes takes weeks to reach its peak
(b) Barbiturates, rifampicin are inducing agents
(c) Chloramphenicol, cimetidine produce inhibition of drug metabolism
(d) Inverse agonist have affinity but no intrinsic activity

24. Which statement is true?
(a) In competitive inhibition $K_m$ increases while $V_{max}$ remains unchanged
(b) In noncompetitive inhibition $K_m$ is unchanged while $V_{max}$ is reduced
(c) Aspirin inhibits cyclooxygenase enzyme competitively
(d) Digoxin inhibits sodium potassium ATPase enzyme noncompetitively

25. Regarding receptors following is true
(a) Agonists have affinity and submaximal intrinsic activity
(b) Inverse agonist have affinity and inactivate the receptors
(c) Antagonists always competes for the site of agonist
(d) Agonists and competitive antagonists are both ligand for the same receptor

26. Which statement is true?
(a) Thyroxine, vitamin D, vitamin A receptors are intracellular
(b) Receptors with intrinsic ion channel are slowest of all receptors
(c) cAMP is the only second messenger in transduction mechanism
(d) G-protein coupled receptors contain 5 alpha helical membrane spanning segments
27. Silent receptors are
   (a) Also called drug acceptors
   (b) Also called sites of drug loss
   (c) Plasma proteins act as one type of silent receptors
   (d) All of the above

28. True about receptors
   (a) Mostly proteins in nature
   (b) May be on the cell surface or may be intracellular
   (c) Specific for particular transmitter, hormones, drugs
   (d) All of the above

29. Drug dose for the children can be calculated by following formula
   (a) Young's formula
   (b) Dilling's formula
   (c) Both of the above
   (d) None of these

30. Which is incorrect statement?
   (a) Placebo do not induce any physiological responses
   (b) Placebo means I shall please
   (c) Usually an inert substance
   (d) Placebo can supplement pharmacological effects of main drug

31. Tachyphylaxis means
   (a) Rapid development of tolerance
   (b) Usually develops when drug is given in quick successions
   (c) Usually develops against indirectly acting drugs like tyramine
   (d) All of the above

32. Which statement is false?
   (a) Adverse drug reaction and adverse drug events are same
   (b) Side effects occur in the therapeutic dose
(c) Side effects at one time may be used for the therapy at other situations
(d) Overdose of the drugs produce toxic effects

33. Idiosyncratic reaction is
   (a) Genetically mediated
   (b) Immunologically mediated
   (c) Predictable type of reaction
   (d) Occur at high doses only

34. Which is false statement?
   (a) Photosensitivity reactions may be phototoxic or photoallergic
   (b) Phototoxic reactions are mainly due to UV - B type of radiations
   (c) Photoallergic reactions are mainly due to UV - A type of radiations
   (d) Demeclocycline does not show phototoxic reactions

35. Which is true statement?
   (a) Cocaine, Cannabis produce addiction but little or no physical dependence
   (b) Nalorphine does not produce physical dependence
   (c) Psychological and physical dependence are same
   (d) Neuroadaptation occurs in psychological dependence

36. Teratogenicity is
   (a) Effect of drug on the foetus when drug is given to pregnant mother
   (b) According to potential to cause teratogenicity, drugs are divided in to five categories
   (c) Category A drugs are the safest for pregnant mother
   (d) All of the above
37. Regarding Teratogenicity which of the following is correct
(a) Most vulnerable period for teratogenic effects is organogenesis (18-55 days of gestation)
(b) Thalidomide disaster occurred in 1858-61 in India
(c) Thalidomide produced phocomelia which means child were having cleft lip and cleft palate
(d) Thalidomide does not have any potential in present therapeutics

38. Which statement is true?
(a) Iatrogenic disorders are physician induced diseases
(b) Anticancer drugs are safe for pregnant women
(c) Vitamin A derivative Isotretinoin is not teratogenic
(d) Corticosteroids should be given in high dose and abruptly withdrawn

39. Which statement is false?
(a) Intolerance occurs at therapeutic doses
(b) Side effects occurs at therapeutic doses
(c) Toxic effects occurs at therapeutic doses
(d) Drug allergy occurs at therapeutic doses

40. Pharmacopeia is
(a) Preparation of ayurvedic drugs
(b) Book containing information regarding drugs
(c) A place where drugs are stored
(d) A place where vaccines are stored
Autonomic Nervous System

1. **Which statement is false?**
   (a) All somatic nerves are myelinated
   (b) All preganglionic autonomic nerves are myelinated
   (c) All postganglionic autonomic nerves are non-myelinated
   (d) All are false statements

2. **Acetyl choline is**
   (a) A neurotransmitter present in somatic system
   (b) A neurotransmitter present in sympathetic ganglion
   (c) A neurotransmitter present in parasympathetic ganglion
   (d) All are true statements

3. **True about somatic is**
   (a) Supply skeletal muscles
   (b) Distal most synapse is present within CNS
   (c) Nerve fibers are myelinated
   (d) Peripheral plexus formation is absent
   (e) All are true

4. **Which statement is false?**
   (a) Highest regulating centre of autonomic system is hypothalamus
   (b) Posterior and lateral nuclei of hypothalamus are sympathetic in nature
   (c) Anterior and medial nuclei of hypothalamus are parasympathetic in nature
   (d) Autonomic nerves only have afferent and no efferent
5. **Which statement is true?**
   (a) Sympathetic has mainly dorso-lumbar origin
   (b) Parasympathetic has mainly dorso–lumbar origin
   (c) Most blood vessels, sweat glands, spleen, hair follicles receive only parasympathetic innervations
   (d) Ciliary muscle, gastric and pancreatic glands receive mainly sympathetic innervations

6. **Which statement is false?**
   (a) Sympathetic system has only adrenaline as neurotransmitter
   (b) Sympathetic system has both noradrenaline and acetylcholine as neurotransmitter
   (c) Preganglionic fibers of sympathetic system are very small in comparison to post ganglionic
   (d) Ganglia of sympathetic fibers is present away from the organ

7. **Which statement is false?**
   (a) Parasympathetic has only acetylcholine as neurotransmitter
   (b) Origin is mainly cranio-sacral and limited to head, neck, and trunk
   (c) Ganglia of parasympathetic is present very close or on the organ
   (d) None of the above

8. **IPSP means**
   (a) Increased postsynaptic potential
   (b) Inhibitory postsynaptic potential
   (c) Inward postsynaptic potential
   (d) Impulse postsynaptic potential
9. **EPSP means**
   (a) Excitatory presynaptic potential  
   (b) Excitatory prosynaptic potential  
   (c) Excitatory postsynaptic potential  
   (d) Extra postsynaptic potential

10. **Co-transmission means**
    (a) Multiple neurons are stimulated at one time  
    (b) Sympathetic, parasympathetic, and somatic fibers are stimulated simultaneously  
    (c) Multiple primary transmitters and others like ATP, adenosine, VIP, neuropeptide Y, substance P are released and act in process of impulse transmission  
    (d) None of the above

11. **NANC means**
    (a) Non autonomic non central  
    (b) Non acetylcholinergic non cholinergic  
    (c) Non adrenergic non cholinergic  
    (d) None of the above

12. **Acetylcholine is**
    (a) Major neurohumoral transmitter at autonomic as well as somatic sites  
    (b) Active at muscarinic as well as nicotinic types of receptors both  
    (c) Broken down by true and pseudo cholinesterases  
    (d) Synthesized from ATP, Acetate and CoEn-A  
    (e) All of the above

13. **Muscarnic receptor is**
    (a) Blocked by atropine  
    (b) Multiple types (M1-5)  
    (c) Present at heart, smooth muscles of git, gastric glands, and CNS  
    (d) All are true statements
14. Pirenzepine is  
(a) Alpha one receptor blocker  
(b) Alpha two receptor blocker  
(c) Nicotinic receptor blocker  
(d) Muscarinic type one receptor blocker

15. Bethenechol is  
(a) Nicotinic receptor agonist  
(b) Muscarinic receptor agonist  
(c) Muscarinic receptor antagonist  
(d) None of the above

16. Atropine  
(a) Blocks M1 type of muscarinic receptors only  
(b) Blocks N1 types of nicotinic receptors only  
(c) Blocks all types of muscarinic receptors  
(d) Blocks all types of nicotinic receptors

17. CNS contains  
(a) Only M1 receptors  
(b) All types of muscarinic receptors but M1 predominates  
(c) All types of muscarinic receptors but M2 predominates  
(d) All types of muscarinic receptors but M3 predominates

18. Which statement is true?  
(a) M1 have IP3/DAG transducer mechanism  
(b) M2 have IP3/DAG transducer mechanism  
(c) M3 have K+ channels opening as transducer mechanism  
(d) None is true

19. Nicotinic receptor is  
(a) A type of cholinergic receptor  
(b) Blocked by tubocurarine  
(c) Blocked by hexamethonium  
(d) All are true statements