

General Pharmacology

1 Physiological antagonism found in:

- (a) Isoprenaline and salbutamol (c) Adrenaline and histamine
(b) Isoprenaline and adrenaline (d) Isoprenaline and propranolol

2 Amount of drug left after four plasma half-lives is:

- (a) 12.5% (c) 25%
(b) 6.25% (d) 50%

3 Loading dose depends on following factors, EXCEPT:

- (a) Drug concentration to be achieved (c) Clearance of the drug
(b) Bioavailability of drug (d) Volume of distribution

4 Therapeutic Index is:

- (a) ED₅₀/LD₅₀ (c) LD₅₀/ED₅₀
(b) ED₅₀-LD₅₀ (d) ED₅₀×LD₅₀

5 Which of the following acts on both parasympathetic and sympathetic division:

- (a) Atropine (c) Pilocarpine
(b) Acetylcholine (d) Adrenaline

6 Which of the following statement is true:

- (a) If a drug is administrated rectally it follow 1st order kinetics
(b) If a drug is administrated I.M. it follow zero order kinetics
(c) If a drug is administrated I.V. it follow 1st order kinetics
(d) Bioavailability is usually lower after oral administration than i.v. administration

7 The aim of post-marketing surveillance deals with:

- (a) Efficacy of the drug
(b) Dosage of the drug
(c) Pharmacokinetic (absorption, distribution, binding/storage) of drug
(d) Safety and comparisons of drug with other medications

8 Insulin receptor is:

- (a) G-protein coupled receptor
(b) Transmembrane JAK-STAT binding receptor
(c) Ion channel receptor
(d) Transmembrane enzyme-linked receptor

9 Marked redistribution is a feature of:

- (a) Highly lipid soluble drugs
- (b) Poorly lipid soluble drugs
- (c) Depot preparations
- (d) Highly plasma protein bound drugs

10 If a drug has a constant bioavailability and first order elimination, its maintenance dose rate will be directly proportional to its:

- (a) Volume of distribution
- (b) Plasma protein binding
- (c) Lipid solubility
- (d) Total body clearance

11 The following is not a feature of competitive antagonist:

- (a) Chemical resemblance with the agonist
- (b) Parallel rightward shift of the agonist log dose response curve
- (c) Suppression of maximal agonist response
- (d) Apparent reduction in agonist affinity for the receptor

12 Physiological antagonism found in:

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- (c) Adrenaline and histamine
- (d) Isoprenaline and propranolol

13 Amount of drug left after four plasma half-lives is:

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- (d) 50%

14 Loading dose depends on following factors, except:

- (a) Drug concentration to be achieved
- (b) Bioavailability of drug
- (c) Clearance of the drug
- (d) Volume of distribution

15 The therapeutic index of a drug is a measure of its:

- (a) Safety
- (b) Potency
- (c) Efficacy
- (d) Dose variability

16 An 'orphan drug' is:

- (a) A very cheap drug
- (b) A drug needed for treatment or prevention of a rare disease
- (c) A drug which has no therapeutic use
- (d) A drug which acts on orphan in receptors

- 17 Knowledge of plasma half-life of drugs helps in all of the following EXCEPT
- a) Determining the frequency of drug administration
 - b) Determining the steady state concentration
 - c) Determining the drug interaction
 - d) Determining the duration of action of drug
- 18 All of the following statements are correct about the competitive antagonism EXCEPT
- a) Both the agonist and antagonist act on the same receptor
 - b) Effect of antagonist can be reversed by increasing the concentration of agonist
 - c) Effect of antagonists cannot be reversed by increasing the concentration of agonist
 - d) Maximum response can be achieved in the presence of antagonist
- 19 An undesirable effect of a drug that occurs at therapeutic doses and can be predicted from its pharmacological actions is called:
- a) Side effect
 - b) Toxic effect
 - c) Allergic reaction
 - d) Idiosyncrasy
- 20 The therapeutic index of Drug A and B is 20 and 3 respectively. Which of the following statement is correct, if these drugs are used for the same purpose.
- a) Drug A has narrow safety margin; should be prescribed cautiously
 - b) Drug B has narrow safety margin; should be prescribed cautiously
 - c) Drug B should be preferred over drug A for the therapeutic purpose
 - d) Both the drugs are equally safe
- 21 True Statement regarding first order kinetics is
- a) Independent of Plasma concentration
 - b) A constant proportion of plasma concentration is eliminated
 - c) $t_{1/2}$ increases with dose
 - d) clearance decreases with dose
- 22 A partial agonist has:
- a) High affinity but low intrinsic activity
 - b) High affinity but no intrinsic activity
 - c) Low affinity but high intrinsic activity
 - d) Low affinity but low intrinsic activity
- 23 When the same dose of a drug is repeated at half-life intervals, the steady-state (plateau) plasma drug concentration is reached after:
- a) 2-3 Half lives
 - b) 4-5 Half lives
 - c) 6-7 Half lives
 - d) 8-10 Half lives

24 Following statements about the Plasma Protein binding of drug is true Except

- A. Shows amount of non-active drug
- B. Escapes the biological metabolism
- C. Drug action depends on level of plasma protein
- D. When two drugs bind with the same protein sites, there is clinically important drug interaction

25 Proprietary Name is same as

- A. Chemical name
- B. Name assigned by the manufacturer
- C. Name accepted by the scientific authority
- D. All

26 Regarding intravenous route, the most appropriate statement is

- A. All kind of solution can be injected intravenously
- B. It is the safest route
- C. Thrombophlebitis of veins and necrosis can occur
- D. Large volumes cannot be given by this route

27 Regarding Dose Response Curve (DRC), select the most appropriate answer

- A. Competitive antagonism – DRC shifts to the right
- B. Non-Competitive antagonism – DRC shifts to the right
- C. Both in competitive antagonism & non- competitive antagonism, the DRC shifts to the right
- D. All of the above

28 Appropriate alimentary route of administration when passage of drugs through liver is minimal

- A. Oral
- B. Trans dermal
- C. Rectal
- D. Intra duodenal

29 Pharmacovigilance is used for :

- a) To monitor drug toxicity
- b) To monitor unauthorized drug manufacture
- c) Monitoring of students
- d) Check costs

30 Short half life of thiopentone is due to :

- A. Excretion
B. Metabolism
C. Spontaneous degradation
D. Redistribution

Autonomic nervous system

1. Which of the following drugs is useful in anaphylactic shock

- (a) Isoprenaline
(b) Adrenaline
(c) Noradrenaline
(d) Terbutaline

2. Intraoperative floppy iris syndrome (IFIS) side effect seen with which drug:

- (a) Prazosin
(b) Terazosin
(c) Alfuzosin
(d) Tamsulosin

3. Which drug included in “dope test”

- (a) Ephedrine
(b) Methoxamine
(c) Mephenteramine
(d) Amphetamines

4. Which one is not a use of α_2 agonists:

- (a) To produce sedation
(b) Benign prostate hypertrophy
(c) Glaucoma
(d) Hypertension

5. All have cycloplegic action, EXCEPT:

- (a) Atropine
(b) Tropicamide
(c) Cyclopentolate
(d) Phenylephrine

6. Pilocarpine reduce the intraocular pressure in persons with closed angle glaucoma by:

- (a) Reducing aqueous humor secretion
(b) Contracting iris sphincter muscle
(c) Increasing aqueous humor outflow
(d) Relaxing ciliary muscle

7. Initial bradycardia caused by intramuscular injection of atropine is believed to be caused by:

- (a) Stimulation of medullary vagal centre
- (b) Stimulation of vagal ganglia
- (c) Blockade of M₂ receptors on SA nodal cells
- (d) Blockade of muscarinic autoreceptors on vagal nerve endings

8. Prazosin is an effective antihypertensive while nonselective α adrenergic blockers are not because:

- (a) It is the only orally active α blocker
- (b) It improves plasma lipid profile
- (c) It does not concurrently enhance noradrenaline release
- (d) It improves urine flow in males with prostatic hypertrophy

9. Which of the following drugs is useful in anaphylactic shock

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- (b) Adrenaline
- (c) Noradrenaline
- (d) Terbutaline

10. The following mydriatic does not produce cycloplegia:

- (a) Phenylephrine
- (b) Cyclopentolate
- (c) Atropine
- (d) Homatropine

11. Dobutamine differs from dopamine in that:

- (a) It does not activate adrenergic α receptors
- (b) It does not activate peripheral dopaminergic receptors
- (c) It causes pronounced tachycardia
- (d) It has good blood-brain barrier penetrability

12. The preferred agent for the treatment of belladonna poisoning is

- a) Physostigmine due to its additional direct action on nicotinic receptors
- b) Neostigmine due to central as well as peripheral effects
- c) Physostigmine due to its central as well as peripheral effects
- d) Neostigmine due to its direct action on muscarinic receptors

13. Which of the following statement is correct with regard to treatment of acute organophosphate poisoning?
- Physostigmine is preferred due to its central as well as peripheral effects.
 - Neostigmine is preferred because of direct action on receptors
 - Atropine is administered as early as possible with pralidoxime
 - Atropine is contraindicated but pralidoxime is used
14. Which of the following statement is correct about the use of adrenaline, strength of solution and route of administration?
- Local Styptic 1:10000 Local Infiltration
 - Anaphylactic Shock 1:1000 Intravenous
 - Bronchial Asthma 1:200 Subcutaneous
 - With Local Anesthetics 1:1000 Local infiltration
15. All are classified as reversible anticholinesterases, EXCEPT
- Ambenonium
 - Physostigmine
 - Neostigmine
 - Ecothiopate
16. Lower dose of dopamine in cardiogenic shock will increase
- Cardiac output
 - Urine output
 - Heart rate
 - Blood Pressure
17. Phenylephrine causes:
- Constriction of vessels in nasal mucosa
 - Increased gastric secretion and motility
 - Increased skin temperature
 - Miosis
18. Epinephrine causes a decrease in:
- C AMP in heart muscle
 - Free Fatty acid in blood
 - Glucose in blood
 - Triglycerides in fat cells
19. When pupillary dilation ----but not cycloplegia is desired, a good choice is:
- Isoproterenol
 - Norepinephrine
 - Phenylephrine
 - Tropicamide
20. The following statement about the action of sympathomimetic is correct:
- Adrenaline has almost exclusively beta-adrenoceptor agonist actions
 - Noradrenaline has an approximately equal mix of alpha and beta adrenoceptor actions
 - Isoprenaline has predominantly alpha adrenoceptor agonist actions
 - Amphetamine acts indirectly by causing release of noradrenaline stored in nerve endings.

21. The following statements about α -adrenoceptors blocking drugs are correct except:

- a) Phentolamine is contraindicated for adrenergic hypertensive crises.
- b) Phenoxybenzamine is an irreversible antagonist.
- c) Those that block α -1 and α -2 adrenoceptors may be associated with troublesome tachycardia.
- d) Prazosin may cause hypotension after the initial dose

22. β -adrenoceptor blocking drugs:-

- a) Increased myocardial oxygen consumption.
- b) Selective for cardiac β -1 receptors can safely be used in asthmatics.
- c) With membrane stabilizing effect are more useful as antidysrhythmic than as antihypertensive
- d) Are useful when blood pressure must be lowered within a few hours.

23. A 38-year-old male has recently started monotherapy for mild hypertension. At his most recent office visit, he complains of tiredness and not being able to complete three sets of tennis. Which one of the following drugs is most likely to be taking for hypertension?

- a) Atenolol
- b) Ephedrine
- c) Prazosin
- d) Phentolamine

24. Adrenergic neuron blocking drugs:

- a) Block the actions of adrenaline on neuronal α -2 adrenoceptors
- b) Block both α and β adrenoceptors mediated effects of injected adrenaline
- c) Do not block any effect of injected adrenaline
- d) Do not block the effects of sympathetic nerve stimulation

25. The drug which produces vasoconstriction despite being an α adrenergic blocker is:

- a) Phenoxybenzamine
- b) Ergotamine
- c) Dihydroergotoxine
- d) Tolazoline

26. Phentolamine is the preferred α adrenergic blocker for performing diagnostic test for pheochromocytoma because:

- a) It produces rapid and short acting α -adrenergic blockade
- b) It equally blocks α_1 and α_2 adrenoceptors
- c) It is most potent α blocker
- d) It has no additional beta adrenergic blocking property.

27. A 16 year old girl treated for asthma develops skeletal muscle tremors that are drug-induced .Which of the following was the most likely cause?

- a) Albuterol
- b) Beclomethasone
- c) Cromolyn Sodium
- d) Ipratropium Bromide

28. Pralidoxime can reactivate cholinesterase enzyme that has been inactivated by;
- a. Carbamate anticholinesterases
 - b. Organophosphate anticholinesterases
 - c) Reversible anticholinesterases
 - d) Both 'a' and 'b'
29. Muscarinic cholinceptor agonists may induce vasodilation largely by causing the release of endothelial:
- a. Histamine
 - b. Norepinephrine
 - c. Acetylcholine
 - d. Nitric oxide
30. Which one of the following agents, when applied topically to the eye, would induce both mydriasis and cycloplegia?
- a. Phenylephrine
 - b. Carbachol
 - c. Prazosin
 - d. Atropine

Autocoids

1. This antihistaminic drug which can causes cardiac arrhythmia at high dose by blocking cardiac K⁺ channels is:
- (a) Levocetizine
 - (b) Fexofenadine
 - (c) Astemizole
 - (d) Loratidine
2. The most important risk in the use of sumatriptan for treatment of migraine is:
- (a) Precipitation of seizures
 - (b) Precipitation of psychosis
 - (c) Development of hypertension
 - (d) Coronary vasospasm
3. Nonsteroidal antiinflammatory drugs reduce the diuretic action of furosemide by:
- (a) Preventing prostaglandin mediated intrarenal haemodynamic actions
 - (b) Blocking the action in ascending limb of loop of Henle.
 - (c) Enhancing salt and water reabsorption in distal tubule
 - (d) Increasing aldosterone secretion
4. Select the first choice drug for acute gout:
- (a) Colchicine
 - (b) Indomethacin
 - (c) Allopurinol
 - (d) Dexamethasone
5. Nonsteroidal anti-inflammatory drugs reduce the diuretic action of furosemide by:
- (a) Preventing prostaglandin mediated intrarenal hemodynamic actions
 - (b) Blocking the action in ascending limb of loop of Henle
 - (c) Enhancing salt and water reabsorption in distal tubule
 - (d) Increasing aldosterone secretion

6. This antihistaminic drug can cause cardiac arrhythmia at high dose by blocking cardiac K^+ channels. It is most likely to be:

- (a) Levocetirizine
- (b) Fexofenadine
- (c) Astemizole
- (d) Loratidine

7. Following are the natural alkaloids obtained from opium which possess analgesic property.

- 1. Codeine
- 2. Noscapine
- (c) Pethidine
- (d) Heroin

8. Morphine depresses the following centers in central nervous system

- A. Edinger Westphal nucleus, resulting in miosis
- B. Cough center
- C. Vasomotor center
- D. Temperature regulating center

9. Morphine is useful for the following painful conditions

- A. Migraine
- B. Angina pectoris
- (c) Pain of terminal illness
- (d) Dysmenorrhea

10. Following statement/s is/are appropriate about buprenorphine.

- (a) Is used sublingually so convenient to use
- (b) Is effective for long time and so convenient to use but analgesia may not be effective.
- (c) Naloxone administration precipitates withdrawal symptoms when patient is chronically on buprenorphine
- (d) Buprenorphine causes severe constipation, as in case on morphine so not convenient to use.

11. . Following statement/s is/are appropriate about morphine-related drugs.

- (a) Fentanyl is short acting but very effective analgesic having minimal respiratory depressant effect.
- (b) Methadone is used in deaddiction program as it is morphine antagonist
- (c) Loperamide, an opiate analogue has poor CNS effects but it effectively reduces gastric motility.
- (d) Dextropropoxyphene serves purpose of mild analgesic like with less constipating effect.

12. Following is least effective as anti-inflammatory agent

- (a) Aspirin in large dose
- (b) Mephenamic acid
- (c) Nimesulide
- (d) Diclofenac

13. Among NSAIDs, Aspirin is unique because of this property

- a) Irreversibly inhibits its target enzyme
- b) Prevents episodes of gouty arthritis with long term use
- c) Reduces fever
- d) Selectively inhibits the COX 2 enzyme

14. Rofecoxib as compared to indomethacin is

- a) Less likely to cause gastric ulcer and their complication
- b) Likely to be more effective in rheumatoid arthritis
- c) Not likely to produce renal complication
- d) All of the above

15. Phenylbutazone should be used only in patients not responding to other NSAIDs because:

- a) It has lower anti-inflammatory efficacy than other NSAIDs
- b) It has potential to cause Agranulocytosis
- c) It has weak analgesic action
- d) It alters the protein binding and metabolism of many drugs

16. Which of the following analgesics itself frequently causes headache as a side effect:

- a) Indomethacin
- b) Mephenamic Acid
- c) Piroxicam
- d) Metamizol

17. Which of the following statement regarding aspirin is incorrect?

- a) Aspirin is useful in low intensity/integumentary pain
- b) At moderate dose aspirin reduce pyrexia without having any effect on oxygen consumption and metabolic rate
- c) High dose of aspirin may cause noncardiogenic pulmonary edema particularly in elderly
- d) Aspirin should be avoided in 3rd trimester of pregnancy

18. Which of the following statement is correct regarding the therapy of migraine headache?

- a) Dopamine is considered as key mediators in the pathophysiology of migraine
- b) Ergot alkaloids are known to be associated with cardiovascular events when given for migraine treatment
- c) Triptans are best suited for prophylaxis of migraine
- d) Methysergide (5 HT antagonist) is useful for prophylaxis of migraine.

19. Which of the following are the characteristic of diclofenac sodium ?

- a) a. Its concentration in synovial fluid is maintained longer than that in plasma
- b) b. It has no interaction with diuretic oral anticoagulant or hypoglycemia
- c) c. Gastrointestinal upset produced by it is mild
- d) d. It reduces neutrophil chemotaxis and superoxide production at the inflammatory site
- e)

20. Which of the following NSAIDS have efficacy comparable to morphine in postoperative pain

- (a) Ketorolac
- (b) Aspirin
- (c) Ibuprofen
- (d) Nefopam

Respiratory system

1. One of the most common side effect of inhale beclomethasone dipropionate is

- A. Pneumonia
- B. Oropharyngeal candidiasis
- C. Atrophic rhinitis
- D. Pituitary adrenal suppression

2. Dextromethorphan is a/an:

- A. Antihistaminic
- B. Antitussive
- C. Expectorant
- D. Mucolytic

3. Which of the following β_2 agonist bronchodilators is given by inhalation, and is suitable for both terminating asthma attacks as well as for twice daily prophylaxis:

- A. Terbutaline
- B. Bambuterol
- C. Salmeterol
- D. Formoterol

4. The common side effect of salbutamol is:

- A. Hypertension
- B. Headache
- C. Rhinorrhea
- D. Tremors

5. A 16-year-old girl treated for asthma develops skeletal muscle tremors that are drug-induced. Which of the following was the most likely cause?
- A. Salbutamol
 - B. Chromolyn Sodium
 - C. Beclomethasone
 - D. Ipratropium Bromide
6. Bromhexine acts by:
- A. Inhibiting cough centre
 - B. Irritating gastric mucosa and reflexly increasing bronchial secretion
 - C. Depolymerizing mucopolysaccharides present in sputum.
 - D. Desensitizing stretch receptors in the lungs
7. Mucokinetic is a drug which:
- A. Reduces airway mucus secretion
 - B. Increases airway mucus secretion
 - C. Makes respiratory secretions more watery
 - D. Stimulates mucociliary activity of bronchial Epithelium
8. The following antitussive is present in opium but has no analgesic or addicting properties:
- A. Noscapine
 - B. Codeine
 - C. Pholcodeine
 - D. Ethylmorphine
9. The most prominent and dose related side effect of salbutamol is:
- A. Rise in blood pressure
 - B. Muscle tremor
 - C. Hyperglycaemia
 - D. Central nervous system stimulation
10. Select the fastest acting inhaled bronchodilator:
- A. Ipratropium bromide
 - B. Formoterol
 - C. Salbutamol
 - D. Salmeterol
11. Select the antiasthma drug which cannot be administered by inhalation:
- A. Theophylline
 - B. Ipratropium bromide
 - C. Budesonide
 - D. Terbutaline
12. In comparison to inhaled β_2 adrenergic agonists, the inhaled anticholinergics:
- A. Are more effective in bronchial asthma
 - B. Are better suited for control of an acute attack of asthma
 - C. Produce slower response in bronchial asthma
 - D. Produce little benefit in chronic obstructive lung disease

13. Select the drug that is neither bronchodilator nor anti-inflammatory, but has antihistaminic and mast cell stabilizing activity:
- | | |
|------------------------|--------------------------------|
| A. Sodium cromoglycate | C. Beclomethasone dipropionate |
| B. Ketotifen | D. Chlorpheniramine |
14. Leukotriene antagonists are used in bronchial asthma:
- For terminating acute attacks
 - As monotherapy in place of β_2 agonists
 - As adjuvants to β_2 agonists for avoiding corticosteroids
 - As nebulized powder in refractory cases
15. Inhaled beclomethasone dipropionate should be used only in:
- Acute attack of asthma
 - Moderate to severe chronic asthma
 - Status asthmaticus
 - Asthma not responding to systemic corticosteroids

Hormones

- 1 The agent having both estrogenic and anti-estrogenic property:
- | | |
|------------------|--------------|
| A Chlorpromazine | C Clofibrate |
| B Clomiphene | D Clonidine |
- 2 Long acting insulin is:
- | | |
|--------------|------------------|
| A Lente | C Lispro insulin |
| B Ultralente | D Semilente |
- 3 Octreotide is a long acting synthetic analogue of:
- | | |
|-----------------|-----------------------------------|
| A. Prolactin | C. Growth hormone |
| B. Somatostatin | D. Gonadotropin releasing hormone |
- 4 Drugs that suppress growth hormone release in acromegaly include the following except:
- | | |
|------------------|-----------------|
| A. Bromocriptine | C. Somatostatin |
| B. Octreotide | D. Nafarelin |
- 5 Gynaecomastia can be treated with:
- | | |
|-------------------|-------------------|
| A. Chlorpromazine | C. Bromocriptine |
| B. Cimetidine | D. Metoclopramide |

6 Complications of over treatment with thyroxine include the following except:

- A. Auricular fibrillation
- B. Angina pectoris
- C. Congestive heart failure
- D. Acceleration of atherosclerosis

7 Triiodothyronine is preferred over thyroxine in the treatment of:

- A. Endemic goitre
- B. Cretinism
- C. Papillary carcinoma of thyroid
- D. Myxoedema coma

8 Carbimazole acts by inhibiting:

- A. Iodide trapping
- B. Oxidation of iodide
- C. Proteolysis of thyroglobulin
- D. Synthesis of thyroglobulin protein

9 The thyroid inhibitor which produces the fastest response is:

- A. Lugol's iodine
- B. Radioactive iodine
- C. Propylthiouracil
- D. Lithium carbonate

10 The physical half-life of radioactive ^{131}I is:

- A. 8 hours
- B. 8 days
- C. 16 days
- D. 60 days

11 The duration of action of insulin-zinc suspension (lente insulin) is:

- A. 2–4 hours
- B. 8–10 hours
- C. 20–24 hours
- D. 30–36 hours

12 The most common adverse reaction to insulin is:

- A. Hypoglycaemia
- B. Lipodystrophy
- C. Urticaria
- D. Angioedema

13 The insulin preparation of choice in diabetic ketoacidosis is:

- A. Regular insulin
- B. Lente insulin
- C. Isophane insulin
- D. A 30:70 mixture of plain and isophane insulin

14 Insulin resistance can be minimised by the use of:

- A. Corticosteroids
- B. Tolbutamide
- C. Protamine
- D. Monocomponent/human insulin

15 Sulfonylurea hypoglycaemic act by:

- A. Reducing intestinal absorption of glucose
- B. Increasing insulin secretion from pancreas
- C. Reversing down-regulation of insulin receptors
- D. Both 'B' and 'C' are correct

16 The hypoglycaemic action of sulfonylureas is likely to be attenuated by the concurrent use of:

- A. Hydrochlorothiazide
- B. Propranolol
- C. Theophylline
- D. Aspirin

17 Metformin acts by:

- A. Releasing insulin from pancreas
- B. Suppressing gluconeogenesis and glucose output from liver
- C. Up regulating insulin receptors
- D. Inhibiting degradation of insulin

18 The following antidiabetic drug inhibits intestinal brush border α -glucosidase enzymes:

- A. Acarbose
- B. Pioglitazone
- C. Metformin
- D. Guargum

19 Select the drug which tends to reverse insulin resistance by increasing cellular glucose transporters:

- A. Glibenclamide
- B. Rosiglitazone
- C. Acarbose
- D. Prednisolone

20 Glucocorticoids impair carbohydrate tolerance by:

- A. Promoting gluconeogenesis in liver
- B. Depressing glucose uptake into skeletal muscles
- C. Inhibiting insulin secretion
- D. Both A and B are correct

21. The following adverse effect of corticosteroids is mainly due to their mineralocorticoid action:

- A. Osteoporosis
- B. 'Moon face'
- C. Rise in blood pressure
- D. Increased susceptibility to infection

22. The following androgen does not produce cholestatic jaundice as an adverse effect:
- A. Testosterone propionate
 - B. Methyl testosterone
 - C. Fluoxymesterone
 - D. Stanozolol
23. Parenteral testosterone therapy in a boy can cause the following adverse effects except:
- A. Gynaecomastia
 - B. Acne
 - C. Cholestatic jaundice
 - D. Precocious puberty
24. Danazol produces the following side effects in premenopausal women except:
- A. Acne
 - B. Menorrhagia
 - C. Amenorrhoea
 - D. Hot flashes
25. The following drug has potent antiandrogenic and weak progestational activity:
- A. Ethylestrenol
 - B. Clomiphene citrate
 - C. Cyproterone acetate
 - D. Mestrol acetate
26. Which of the following is a non-steroidal antiandrogen that is palliative in advanced carcinoma prostate when combined with a GnRH agonist:
- A. Cyproterone acetate
 - B. Danazol
 - C. Finasteride
 - D. Flutamide
27. Clomiphene citrate is indicated for the following condition/conditions:
- A. Female infertility due to anovular cycles
 - B. Male infertility due to oligozoospermia
 - C. Endometriosis
 - D. Both 'A' and 'B'
28. Oestrogens are palliative in the following malignancy:
- A. Carcinoma breast
 - B. Carcinoma cervix
 - C. Endometrial carcinoma
 - D. Carcinoma prostate
- 29 The estrogen commonly used for hormone replacement therapy in menopausal women is:
- A. Ethinylestradiol
 - B. Estradiol benzoate
 - C. Diethylstilbestrol
 - D. Conjugated estrogens
- 30 In patients with benign prostatic hypertrophy, finasteride exerts the following action/actions:
- A. Reduces size of the prostate gland
 - B. Increases peak urinary flow rate
 - C. Relaxes vesical sphincter
 - D. Both 'A' and 'B' are correct

31. The following is true of raloxifene except:
- A. It acts as an estrogen agonist in bone
 - B. It exerts estrogen antagonistic action on endometrium
 - C. It increases risk of developing breast cancer
 - D. It can induce/aggravate menopausal hot Flushes
32. The primary indication of tamoxiphen citrate is:
- A. Female infertility
 - B. Endometrial carcinoma
 - C. Carcinoma breast
 - D. Endometriosis
33. The following is/are beneficial in endometriosis:
- A. Norethindrone
 - B. Nafarelin
 - C. Danazol
 - D. All of the above
34. Which of the following drugs is an antiprogestin:
- A. Gemeprost
 - B. Megestrol
 - C. Mifepristone
 - D. Tamoxifen
35. Which of the following can act as a single dose postcoital contraceptive:
- A. Clomiphene citrate
 - B. Mifepristone
 - C. Danazol
 - D. Medroxyprogesterone acetate
36. The primary indication of tamoxiphen citrate is:
- A. Female infertility
 - B. Endometrial carcinoma
 - C. Carcinoma breast
 - D. Endometriosis
37. Which of the following tocolytics used for suppressing labour is most likely to compromise placental perfusion:
- A. Salbutamol
 - B. Ethyl alcohol
 - C. Magnesium sulphate
 - D. Nifedipine
38. The currently used injectable hormonal contraceptive contains:
- A. Long acting progestin
 - B. Long acting estrogen
 - C. Both long acting estrogen and progestin
 - D. Chorionic gonadotropin
39. Centchroman is:
- A. An oral contraceptive for women
 - B. An oral contraceptive for men
 - C. A mast cell stabilizer
 - D. A centrally acting muscle relaxant

40. Which of the following can act as a single dose postcoital contraceptive:

- A. Clomiphene citrate
- B. Mifepristone
- C. Danazol
- D. Medroxyprogesterone acetate

Peripheral nervous system

1. The neuromuscular blocker that does not need reversal of action by neostigmine at the end of the operation is:

- (a) d-Tubocurarine
- (b) Doxacurium
- (c) Pipecuronium
- (d) Mivacurium

2. Local anaesthetics block nerve conduction by:

- (a) Blocking all cation channels in the neuronal membrane
- (b) Hyperpolarizing the neuronal membrane
- (c) Interfering with depolarization of the neuronal membrane
- (d) Both 'B' and 'C' are correct

3. Injection of adrenaline along with a local anaesthetic serves the following purpose

- (a) Prolongs the duration of local anaesthesia
- (b) Lowers the concentration of the local anaesthetic to produce nerve block
- (c) Increases the anaesthetized area
- (d) Reduces the local toxicity of the local anaesthetic

4. Which of the following drugs undergoes 'Hofmann' elimination?

- (a) Pancuronium
- (b) Vecuronium
- (c) Succinylcholine
- (d) Atracurium

5. Which of the following drug is used to reverse the effect of d-tubocurarine?

- (a) Atropine
- (b) Physostigmine
- (c) Neostigmine
- (d) Edrophonium

6. 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

7. The neuromuscular blocker that does not need reversal of action by neostigmine at the end of the operation is:
- (a) d-Tubocurarine
 - (b) Doxacurium
 - (c) Pipecuronium
 - (d) Mivacurium
8. Succinylcholine is the preferred muscle relaxant for tracheal intubation because:
- (a) It produces rapid and complete paralysis of respiratory muscles with quick recovery
 - (b) It does not alter heart rate or blood pressure
 - (c) It does not cause histamine release
 - (d) It does not produce postoperative muscle soreness
9. The following antibiotic accentuates the neuromuscular blockade produced by pancuronium:
- (a) Streptomycin
 - (b) Erythromycin
 - (c) Penicillin G
 - (d) Chloramphenicol
10. Local anaesthetics block nerve conduction by:
- (a) Blocking all cation channels in the neuronal membrane
 - (b) Hyperpolarizing the neuronal membrane
 - (c) Interfering with depolarization of the neuronal membrane
 - (d) Both 'B' and 'C' are correct
11. The following local anaesthetic raises BP instead of tending to cause a fall:
- (a) Cocaine
 - (b) Dibucaine
 - (c) Lignocaine
 - (d) Procaine
12. The local anaesthetic with the longest duration of action is:
- (a) Procaine
 - (b) Chlorprocaine
 - (c) Lignocaine
 - (d) Dibucaine
13. Which of the following is a poor surface anaesthetic:
- (a) Procaine
 - (b) Lignocaine
 - (c) Tetracaine
 - (d) Benoxinate
14. The local anaesthetic having high cardiotoxic and arrhythmogenic potential is:
- (a) Lignocaine
 - (b) Procaine
 - (c) Bupivacaine
 - (d) Ropivacaine
15. The following local anaesthetic is poorly water soluble, PABA derivative and primarily used for anorectal lesions, wounds and ulcers:
- (a) Benzocaine
 - (b) Dibucaine
 - (c) Procaine
 - (d) Benoxinate

Central nervous system

1. 'Second gas effect' is exerted by the following gas when co administered with halothane
 - (a) Nitrous oxide
 - (b) Cyclopropane
 - (c) Nitrogen
 - (d) Helium
2. The following antiepileptic drug is likely to cause hyponatremia especially in elderly patients
 - (a) Primidone
 - (b) Carbamazepine
 - (c) Phenytoin
 - (d) Sodium valproate
3. Select the analgesic which acts through opioid and additional spinal monoaminergic mechanisms:
 - (a) Tramadol
 - (b) Ethoheptazine
 - (c) Dextropropoxyphene
 - (d) Alfentanil
4. The following antiepileptic drug is likely to cause hyponatremia as a side effect, especially in elderly patients:
 - (a) Primidone
 - (b) Carbamazepine
 - (c) Phenytoin
 - (d) Sodium valproate
5. Diabetic and other types of neuropathic pain often responds to:
 - (a) Chlorpromazine
 - (b) Diazepam
 - (c) Imipramine
 - (d) Lithium
6. The antidote of choice for morphine poisoning is:
 - (a) Nalorphine
 - (b) Nalbuphine
 - (c) Naltrexone
 - (d) Naloxone
7. Malignant hyperthermia is a rare complication of use of the following anaesthetic:
 - (a) Ketamine
 - (b) Thiopentone sodium
 - (c) Halothane
 - (d) Ether
8. The following drug is used to reverse the CNS depression produced by diazepam:
 - (a) Dexamphetamine
 - (b) Doxapram
 - (c) Physostigmine
 - (d) Flumazenil

9. Select the antiepileptic drug that is effective in manic depressive illness as well:

- (a) Ethosuccimide
- (b) Primidone
- (c) Phenobarbitone
- (d) Carbamazepine

10. The antidote of choice for morphine poisoning is:

- (a) Nalorphine
- (b) Nalbuphine
- (c) Naltrexone
- (d) Naloxone

11. Ethanol is used in methanol poisoning because it:

- (a) Antagonise 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

12. 'Dissociative anesthesia' is produced by:

- (a) Fentanyl
- (b) Propofol
- (c) Ketamine
- (d) Halothane

13. Drug useful in malignant hyperthermia is:

- (a) Halothane
- (b) Phenytoin
- (c) Haloperidol
- (d) Dantrolene

14. Which of the following is a selective MAO-B inhibitor:

- (a) Selegiline
- (b) Moclobemide
- (c) Clorgyline
- (d) Tranylcypromine

15. The antidote of choice for morphine poisoning is:

- (a) Nalorphine
- (b) Nalbuphine
- (c) Naloxone
- (d) Nalbuphine

16. Which of the antiepileptic drug is useful in manic depressive illness?

- (a) Ethosuximide
- (b) Primidone
- (c) Phenobarbitone
- (d) Carbamazepine

17. The preferred drug for suppressing febrile convulsions is:

- (a) Intramuscular phenobarbitone
- (b) Rectal diazepam
- (c) Intravenous phenytoin
- (d) Oral sodium valproate

18. Ethanol is used in methanol poisoning because it:
- (a) Antagonizes 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
19. Morphine is contraindicated in head injury because:
- (a) It does not relieve the pain of head injury
 - (b) It can cause constipation
 - (c) It can raise intracranial tension
 - (d) It is liable to cause addiction
20. The minimal alveolar concentration of an inhalational anesthetic is a measure of its:
- (a) Potency
 - (b) Diffusibility
 - (c) Therapeutic index
 - (d) Oil: water partition coefficient
21. Which of the following anticholinergic drugs is primarily used in preanaesthetic medication and during surgery:
- (a) Glycopyrrolate
 - (b) Isopropamide
 - (c) Pipenzolate methyl bromide
 - (d) Dicyclomine
22. Which general anaesthetic selectively inhibits excitatory NMDA receptors:
- (a) Thiopentone
 - (b) Desflurane
 - (c) Halothane
 - (d) Ketamine
23. Besides schizophrenia chlorpromazine is also effective
- (a) In intractable hiccoughs
 - (b) As an antihypertensive agent
 - (c) In the treatment of depression
 - (d) For treating motion sickness
24. Following statement/s is/are correct in relation to antidepressant drugs
- (a) MAO inhibitors are considered riskier because of interaction with certain food item
 - (b) MAO inhibitors are more efficacious and safer, they are preferred to tricyclic antidepressants
 - (c) MAO inhibitors may induce hallucinations and excitement as toxicity
 - (d) Selegiline is a MAO inhibitor, which is useful in treatment of Parkinson's disease

25. Select the general anaesthetic having the most marked uterine relaxant action:
- (a) Propofol (c) Halothane
(b) Nitrous oxide (d) Ether
26. Malignant hyperthermia is a rare complication of use of the following anesthetic:
- (a) Ketamine (b) Thiopentone sodium
(c) Halothane (d) Ether
27. The primary mechanism of action of benzodiazepines is:
- (a) Dopamine antagonism
(b) Adenosine antagonism
(c) Opening of neuronal chloride channels
(d) Facilitation of GABA-mediated chloride influx
28. Zolpidem differs from diazepam in that:
- (a) It is safer in overdose than diazepam
(b) Its hypnotic action shows little fading on repeated nightly use
(c) It causes more marked suppression of REM sleep
(d) It has more potent muscle relaxant action
29. Select the antiepileptic drug that is effective in manic-depressive illness as well:
- (a) Ethosuccimide (c) Primidone
(b) Phenobarbitone (d) Carbamazepine
30. Select the drug having a narrow spectrum antiepileptic activity restricted to absence seizures:
- (a) Lamotrigine (c) Ethosuccimide
(b) Sodium valproate (d) Primidone

Cardiovascular system

1. Drug implicated in prolonging QT interval is:
- (a) Cisapride (c) Domperidone
(b) Metoclopramide (d) Omeprazole
2. Losartan differs from enalapril in the following respect:
- (a) It does not potentiate bradykinin (c) It impairs carbohydrate tolerance
(b) It depresses cardiovascular reflexes (d) It does not have fetopathic potential
3. Select the drug which is beneficial in refractory congestive heart failure:
- (a) Nicorandil (c) Amrinone
(b) Amiodarone (d) Carvedilol

4. Losartan is a:

- (a) Selective AT1 receptor antagonist
- (b) Selective AT2 receptor antagonist
- (c) Nonselective AT1+AT2 receptor antagonist
- (d) AT1 receptor partial agonist

5. The preferred diuretic for mobilizing edema fluid in CHF is:

- (a) Hydrochlorothiazide
- (b) Furosemide
- (c) Metolazone
- (d) Amiloride

6. Which of the following drugs is a potassium channel opener:

- (a) Nicorandil
- (b) Hydralazine
- (c) Glibenclamide
- (d) Amiloride

7. Persistent dry cough may occur as a side effect of the following antihypertensive drug:

- (a) Enalapril
- (b) Atenolol
- (c) Diltiazem
- (d) Methyldopa

8. Glyceryl trinitrate is administered by the following routes except:

- (a) Oral
- (b) Intramuscular
- (c) Sublingual
- (d) Intravenous

9. Which of the following drug is most likely to worsen variant (Prinzmetal) angina:

- (a) Propranolol
- (b) Verapamil
- (c) Atenolol
- (d) Dipyridamole

10. Choose the drug that selectively blocks AT1 subtype of angiotensin receptors:

- (a) Ramipril
- (b) Sumatriptan
- (c) Candesartan
- (d) Lovastatin

11. Angiotensin converting enzyme inhibitors are contraindicated in:

- (a) High renin hypertensives
- (b) Pregnant women
- (c) Congestive heart failure patients
- (d) Diabetics

12. The following drug is used to reduce the frequency of angina pectoris as well as to terminate an acute attack:

- (a) Pentaerythritol tetranitrate
- (b) Isosorbide dinitrate
- (c) Diltiazem
- (d) Dipyridamole

13. The following angiotensin converting enzyme inhibitor can reduce cardiac contractility:
- (a) Captopril
 - (b) Perindopril
 - (c) Enalapril
 - (d) Lisinopril
- 14 The most important channel of elimination of digoxin is:
- (a) Glomerular filtration
 - (b) Hepatic metabolism
 - (c) Tubular secretion
 - (d) Excretion in bile
- 15 The following drug increases cardiac output in congestive heart failure without having any direct myocardial action:
- (a) Captopril
 - (b) Amrinone
 - (c) Digoxin
 - (d) Dobutamine
- 16 Digitalis slows the heart in congestive heart failure by:
- (a) Increasing vagal tone
 - (b) Direct depression of sinoatrial node
 - (c) Decreasing sympathetic over activity
 - (d) All of the above
- 17 What is/are the consequence(s) of myocardial Na⁺ K⁺ ATPase inhibition by digoxin:
- (a) Increased intracellular Na⁺ ion concentration
 - (b) Increased cytosolic Ca²⁺ ion concentration
 - (c) Increased intracellular K⁺ ion concentration
 - (d) Both 'A' and 'B' are correct
- 18 Select the most suitable antiarrhythmic drug for counteracting ventricular extra systoles due to digoxin toxicity:
- (a) Lignocaine
 - (b) Verapamil
 - (c) Quinidine
 - (d) Amiodarone
- 19 Digoxin is contraindicated in:
- (a) Angina pectoris patients
 - (b) Hypertensive patients
 - (c) Ventricular tachycardia
 - (d) Complete heart-block
- 21 The preferred diuretic for mobilizing oedema fluid in CHF is:
- (a) Hydrochlorothiazide
 - (b) Metolazone
 - (c) Furosemide
 - (d) Amiloride
22. The following type of vasodilator is not beneficial in CHF due to systolic dysfunction:
- (a) Calcium channel blocker
 - (b) Nitrate
 - (c) Angiotensin converting enzyme inhibitor
 - (d) Hydralazine

23. Select the drug which is an 'inodilator' beneficial in refractory congestive heart failure:

- (a) Nicorandil
- (b) Amrinone
- (c) Amiodarone
- (d) Carvedilol

24. Milrinone is best used:

- (a) In a patient of mild CHF
- (b) As an additional drug along with conventional therapy to tide over crisis in refractory CHF
- (c) For long-term maintenance therapy of CHF
- (d) To suppress digitalis induced arrhythmias

25 The following antiarrhythmic drug has the most prominent anticholinergic action:

- (a) Disopyramide
- (b) Procainamide
- (c) Quinidine
- (d) Lignocaine

26 Lignocaine is effective in the following cardiac arrhythmia(s):

- (a) Atrial fibrillation
- (b) Paroxysmal supraventricular tachycardia
- (c) Digitalis induced ventricular extrasystoles
- (d) All of the above

27 Hypothyroidism is a possible consequence of prolonged therapy with:

- (a) Amiodarone
- (b) Sotalol
- (c) Mexiletine
- (d) Procainamide

28 Actions of adenosine include the following except:

- (a) Depression of A-V node
- (b) Bronchodilatation
- (c) Coronary vasodilatation
- (d) Fall in BP

29. Select the organic nitrate which undergoes minimal first-pass metabolism in the liver:

- (a) Glyceryl trinitrate
- (b) Isosorbide mononitrate
- (c) Isosorbide dinitrate
- (d) Erythryl tetranitrate

30 Nitrate tolerance is least likely to develop with the use of:

- (a) Sustained release oral glyceryl trinitrate
- (b) Transdermal glyceryl trinitrate
- (c) Sublingual glyceryl trinitrate
- (d) Oral pentaerythritol tetranitrate

Kidney

1. Furosemide acts by inhibiting the following in the renal tubular cell:
 - (a) $\text{Na}^{+}\text{-K}^{+}\text{-2Cl}^{-}$ cotransporter
 - (b) $\text{Na}^{+}\text{-Cl}^{-}$ symporter
 - (c) $\text{Na}^{+}\text{-H}^{+}$ antiporter
 - (d) $\text{Na}^{+}\text{ K}^{+}$ ATPase
2. Long term use of which diuretic agent can result in gynecomastia:
 - (a) Amiloride
 - (b) Spironolactone
 - (c) Triamterene
 - (d) Acetazolamide
3. The primary site of action of thiazide diuretics is:
 - (a) Proximal tubule
 - (b) Ascending limb of loop of Henle
 - (c) Collecting ducts
 - (d) Cortical diluting segment
4. The following diuretic abolishes the corticomedullary osmotic gradient in the kidney:
 - (a) Acetazolamide
 - (b) Furosemide
 - (c) Hydrochlorothiazide
 - (d) Spironolactone
- 5 Parenteral furosemide is an alternative diuretic to mannitol in the following condition:
 - (a) Pulmonary oedema
 - (b) Cerebral oedema
 - (c) Cirrhotic oedema
 - (d) Cardiac oedema
- 6 The $\text{Na}^{+}\text{-Cl}^{-}$ symport in the early distal convoluted tubule of the kidney is inhibited by:
 - (a) Thiazides
 - (b) Xipamide
 - (c) Metolazone
 - (d) All of the above
- 7 Long-term thiazide therapy can cause hyperglycaemia by:
 - (a) Reducing insulin release
 - (b) Increasing sympathetic activity
 - (c) Interfering with glucose utilization in tissues
 - (d) Increasing corticosteroid secretion
- 8 At equinatriuretic doses which diuretic causes the maximum K^{+} loss:
 - (a) Furosemide
 - (b) Acetazolamide
 - (c) Hydrochlorothiazide
 - (d) Amiloride
- 9 Spironolactone can be usefully combined with the following diuretics except:
 - (a) Furosemide
 - (b) Hydrochlorothiazide
 - (c) Amiloride
 - (d) Chlorthalidone

10 The current therapeutic indication of acetazolamide is:

- (a) Congestive heart failure
- (b) Cirrhosis of liver
- (c) Renal insufficiency
- (d) Glaucoma

GIT

1 The following anti-ulcer drug does not act by reducing secretion of or neutralizing gastric acid

- (a) Magaldrate
- (b) Sucralfate
- (c) Famotidine
- (d) Omeprazole

2. Regarding Aprepitant all are true, EXCEPT:

- (a) Agonist at NK1 receptors
- (b) Cross blood brain barrier
- (c) Metabolized by CYP450 enzymes
- (d) Ameliorate nausea and vomiting induced by chemotherapy

3. The most important drawback of sucralfate in the treatment of duodenal ulcer is:

- (a) Low ulcer healing efficacy
- (b) Poor relief of ulcer pain
- (c) High incidence of side effects
- (d) Need for taking a big tablet four times a day

4. Which antiemetic selectively blocks levodopa induced vomiting without blocking its

antiparkinsonian action?

- (a) Metoclopramide
- (b) Cisapride
- (c) Domperidone
- (d) Ondansetron

5. Drug implicated in prolonging QT interval is

- (a) Cisapride
- (b) Metoclopramide
- (c) Domperidone
- (d) Omeprazole

6. The following anti-ulcer drug does not act by reducing secretion of or neutralizing gastric acid

- (a) Magaldrate
- (b) Sucralfate
- (c) Misoprostol
- (d) Omeprazole

7. Proton pump inhibitors are most effective when they are given:

- (a) Shortly before meals
- (b) After meals
- (c) Along with H2 blockers
- (d) During prolonged fasting periods

8. The drug which can cause constipation is:

- (a) Propranolol
- (b) Nitroglycerin
- (c) Verapamil
- (d) Captopril

23. Metoclopramide has the following actions except:
- (a) Increases lower esophageal sphincter tone
 - (b) Increases tone of pyloric sphincter
 - (c) Increases gastric peristalsis
 - (d) Increases intestinal peristalsis
24. Irrespective of the type, all laxatives exert the following action:
- (a) Increase the content of solids in the faeces
 - (b) Increase the water content of faeces
 - (c) Reduced absorption of nutrients
 - (d) Increase intestinal motility
25. Which of the following purgatives undergoes entero- hepatic circulation to produce prolonged action:
- (a) Docusates
 - (b) Phenolphthalein
 - (c) Castor oil
 - (d) Mag.sulphate
26. The following laxative lowers blood ammonia level in hepatic encephalopathy:
- (a) Bisacodyl
 - (b) Liquid paraffin
 - (c) Lactulose
 - (d) Magnesium sulphate
27. Stimulant purgatives are contraindicated in the following
- (a) Bed ridden patients
 - (b) Before abdominal radiography
 - (c) Spastic constipation
 - (d) Atonic constipation

Blood

1. Iron sorbitol-citric acid differs from iron dextran in that:
 - (a) It cannot be injected i.v.
 - (b) It is not excreted in urine
 - (c) It is not bound to transferrin in plasma
 - (d) It produces fewer side effects
2. The most important common complication of streptokinase therapy is:
 - (a) Hypotension
 - (b) Bleeding
 - (c) Fever
 - (d) Anaphylaxis
3. The primary mechanism by which heparin prevents coagulation of blood is:
 - (a) Direct inhibition of prothrombin to thrombin conversion
 - (b) Facilitation of antithrombin III mediated inhibition of factor Xa and thrombin
 - (c) Activation of antithrombin III to inhibit factors IX and XI
 - (d) Inhibition of factors XIIa and XIIIa
4. The agent used to reverse the effect of warfarin therapy?
 - (a) Protamine injection
 - (b) Infusion of fibrinogen
 - (c) Whole blood transfusion
 - (d) Vitamin K injection
5. Hydroxocobalamin differs from cyanocobalamin in that:
 - (a) It is more protein bound and better retained
 - (b) It is beneficial in tobacco amblyopia
 - (c) It benefits haematological but not neurological manifestations of vitB12 deficiency
 - (d) Both 'A' and 'B' are correct
6. The percentage of elemental iron in hydrated ferrous sulphate is:
 - (a) 5%
 - (b) 10%
 - (c) 20%
 - (d) 33%
7. The side effect which primarily limits acceptability of oral iron therapy is:
 - (a) Epigastric pain and bowel upset
 - (b) Black stools
 - (c) Staining of teeth
 - (d) Metallic taste
8. The following chelating agent should not be used systemically to treat acute iron poisoning in a child:
 - (a) Desferrioxamine
 - (b) Calcium edetate
 - (c) Dimercaprol
 - (d) Calcium disodium diethylene triamine Penta acetic acid

9. Folic acid is specifically indicated for:

- (a) Prophylaxis of neural tube defect in the offspring of women receiving anticonvulsant medication
- (b) Counteracting toxicity of high dose methotrexate
- (c) Pernicious anaemia
- (d) Anaemia associated with renal failure

10. Choose the preparation(s) of vitamin K that should not be injected in the new born:

- (a) Phytonadione
- (b) Menadione
- (c) Menadione sod. Diphosphate
- (d) Both 'B' and 'C'

11. Low doses of heparin prolong:

- (a) Bleeding time
- (b) Activated partial thromboplastin time
- (c) Prothrombin time
- (d) Both 'B' and 'C'

12. Low molecular weight heparins differ from unfractionated heparin in that:

- (a) They selectively inhibit factor Xa
- (b) They do not significantly prolong clotting time
- (c) They are metabolized slowly and have longer duration of action
- (d) All the above is correct

13. Heparin is contraindicated in patients suffering from the following diseases except:

- (a) Pulmonary tuberculosis
- (b) Bleeding due to defibrination syndrome
- (c) Subacute bacterial endocarditis
- (d) Large malignant tumours

14. The following can be used to antagonise the action of heparin in case of overdose:

- (a) Heparin sulphate
- (b) Dextran sulphate
- (c) Protamine sulphate
- (d) Ancrod

15. The following drug reduces the effect of oral anticoagulants:

- (a) Broad spectrum antibiotic
- (b) Cimetidine
- (c) Aspirin
- (d) Oral contraceptive

16. Anticoagulant medication is indicated in:

- (a) Immobilized elderly patients
- (b) Berger's disease
- (c) Stroke due to cerebral thrombosis
- (d) All of the above

17. The most effective drug for prevention of stroke in atrial fibrillation patients is:
- (a) Aspirin (b) Warfarin
(c) Low dose subcutaneous heparin (d) Digoxin
18. Which fibrinolytic agent(s) selectively activate(s) fibrin bound plasminogen rather than circulating plasminogen:
- (a) Urokinase (b) Streptokinase
(c) Alteplase (d) Both 'A' and 'C'
19. The most important complication of streptokinase therapy is:
- (a) Hypotension (b) Bleeding
(c) Fever (d) Anaphylaxis
20. Tranexamic acid is a specific antidote of:
- (a) Fibrinolytic drugs (b) Organophosphates
(c) Barbiturates (d) Heparin

Antimicrobial

1. Which antimicrobial should be avoided in patients of liver disease?
- (a) Tetracycline (c) Cephalexin
(b) Cotrimoxazole (d) Ethambutol
2. Loading dose of chloroquine is required because it is:
- (a) Rapidly excreted by the kidneys
(b) Rapidly metabolized by biotransformation
(c) Having more entry into infected RBCs
(d) Having high tissue concentration and binding
3. Cefotaxime has the following properties except:
- (a) It is highly active against aerobic gram negative bacteria
(b) It is the most active cephalosporin against *Pseudomonas aeruginosa*
(c) It produces an active metabolite
(d) It has achieved high cure rates in serious hospital acquired infections
4. The following antibiotic exert a long post-antibiotic effect:
- (a) Fluoroquinolones (c) Aminoglycosides
(b) β -lactams (d) All of the above

5. Red man syndrome' has been associated with rapid intravenous injection of the following antibiotic:

- (a) Vancomycin
- (b) Clindamycin
- (c) Cefoperazone
- (d) Piperacillin

6. Select the 3rd generation cephalosporin that can be used only by parenteral route:

- (a) Cefpodoxime proxetil
- (b) Ceftizoxime
- (c) Ceftibuten
- (d) Cefixime

7. Clavulanic acid is combined with amoxicillin because:

- (a) It kills bacteria that are not killed by amoxicillin
- (b) It retards renal excretion of amoxicillin
- (c) It counteracts the adverse effects of amoxicillin
- (d) It inhibits beta lactamases that destroy amoxicillin

8. Tissue schizontocide which prevents relapse of P.vivax malaria is:

- (a) Pyrimethamine
- (b) Primaquine
- (c) Chloroquine
- (d) Quinine

9. The drug of choice for treatment of methicillin resistant staphylococcus aureus infection is:

- (a) Vancomycin
- (b) Cloxacillin
- (c) Erythromycin
- (d) Amikacin

10. Mechanism of action of fluoroquinolones is:

- (a) Inhibits cell wall synthesis
- (b) Inhibit protein synthesis
- (c) Inhibit DNA gyrase
- (d) Inhibit RNA synthesis

11. Clavulanic acid is combined with amoxicillin because:

- (a) It kills bacteria that are not killed by amoxicillin
- (b) It inhibits beta lactamases that destroy amoxicillin
- (c) It retards renal excretion of amoxicillin
- (d) It counteracts the adverse effects of amoxicillin

12. Drug that can cause cartilage damage in children is:

- (a) Cotrimoxazole
- (b) Ciprofloxacin
- (c) Penicillin
- (d) Metronidazole

13. The drug of choice for treatment of methicillin resistant *Staphylococcus aureus* infection is:
- (a) Cloxacillin (c) Amikacin
(b) Vancomycin (d) Erythromycin
14. Probenecid blocks the renal tubular secretion of penicillin and this will lead to
- a) Enhanced excretion of penicillin and decreased plasma concentration
b) Decreased excretion of penicillin and increased plasma concentration
c) No change in plasma concentration of penicillin
d) Enhanced concentration of Probenecid causing toxicity
15. Select the drug that is used orally to treat scabies:
- A. Permethrin B. Ivermectin
C. Praziquantel D. Crotamiton
16. Drug/drugs effective in filariasis include:
- A. Ivermectin B. Albendazole
C. Diethyl carbamazine citrate D. All of the above
17. The following anthelmintic has been found to be safe during pregnancy:
- A. Thiabendazole B. Piperazine
C. Albendazole D. Pyrantel pamoate
18. Select the condition for which 3 days' treatment with pyrantel pamoate is recommended in place of single dose therapy for others:
- A. Ascariasis B. Ancylostomiasis
C. Necatoriasis D. Enterobiasis
19. As an anthelmintic mebendazole has the following advantages except:
- A. It is active against most intestinal helminths
B. It is very well tolerated
C. Single dose cures roundworm and hookworm infestation
D. It does not require pre drug fasting or post drug purging
20. The following drug is used for oral treatment of trichomonas vaginitis:
- A. Diiodohydroxyquin B. Tinidazole
C. Clotrimazole D. Natamycin

21. Choose the most effective drug for mild intestinal amoebiasis and asymptomatic cyst passers:

- A. Metronidazole
- B. Emetine
- C. Quiniodochlor
- D. Diloxanide furoate

22. Tinidazole differs from metronidazole in that:

- A. It is not active against anaerobic bacteria
- B. It has a broader spectrum of activity
- C. It has a longer elimination half life
- D. It has better oral absorption

23. In addition to amoebiasis, metronidazole is used for:

- A. Roundworm infestation
- B. Hookworm infestation
- C. Kala-azar
- D. Giardiasis

24. Indicate the drug that can be used as an alternative to primaquine for radical cure of vivax malaria:

- A. Atovaquone
- B. Bulaquine
- C. Tetracycline
- D. Proguanil

25. Use of the following antimalarial drug carries high risk of adverse effect in subjects with G-6-PD deficiency:

- A. Pyrimethamine
- B. Artemisinin
- C. Primaquine
- D. Mefloquine

26. Sulfadoxine-pyrimethamine combination is used as clinical curative but is not recommended for prophylaxis of malaria because of:

- A. Risk of megaloblastic anaemia due to pyrimethamine
- B. Risk of severe dermatological reactions to sulfadoxine
- C. Need for daily administration of the drug
- D. Slow schizontocidal action of the drug

27. The fastest acting schizontocidal drug among the following is:

- A. Artemether
- B. Mefloquine
- C. Chloroquine
- D. Proguanil

28. Intravenous injection of quinine produces:

- A. Rise in blood pressure
- B. Neuromuscular block
- C. Hyperglycaemia
- D. Hypoglycaemia

29. The drug of choice for cerebral malaria due to *P. falciparum* is:

- A. Quinine
- B. Mefloquine
- C. Chloroquine
- D. Pyrimethamine + Sulfadoxine

30. Which of the following drugs is suitable for treatment of malaria during pregnancy:

- A. Quinine
- B. Chloroquine
- C. Pyrimethamine
- D. Primaquine

Chemotherapy

1. Vincristine differs from vinblastine in the following respect(s):

- A. Its prominent adverse effect is neuropathy
- B. It frequently produces alopecia
- C. It does not significantly depress bone marrow
- D. All of the above

2. Choose the correct statement about topotecan:

- A. It is a DNA topoisomerase I inhibitor which causes single strand DNA breaks
- B. It is a cell cycle specific anticancer drug
- C. It is a COMT-inhibitor used in advanced parkinsonism
- D. Both 'A' and 'B' are correct

3. Patients treated with the following anticancer drug are likely to develop a disulfiram like reaction on taking alcohol:

- A. Dacarbazine
- B. Procarbazine
- C. Melphalan
- D. Hydroxyurea

4. The following does **not** apply to cancer chemotherapy:

- A. Each treatment with a cytotoxic drug kills a constant number of malignant cells
- B. Drugs are generally used at maximum tolerated doses
- C. The same regimen which is palliative for a large solid tumour may be curative after surgical removal of the tumour
- D. Combination regimens using several drugs in succession are superior to single drug used continuously

5. Select the drug which is used exclusively in organ transplantation and autoimmune diseases, but **not** in cancers:

- A. Cyclophosphamide
- B. Cyclosporine
- C. Methotrexate
- D. 6-Mercaptopurine

6. Cyclosporine has the following attributes **except**:
- A. It selectively suppresses humoral immunity without affecting cell mediated immunity
 - B. It is more active as immunosuppressant when administered before antigen exposure than after it
 - C. It is not toxic to the bone marrow
 - D. Its major toxicity is kidney damage
7. The characteristic toxicity of doxorubicin is:
- A. Kidney damage
 - B. Liver damage
 - C. Cardiomyopathy
 - D. Pulmonary fibrosis
8. What is true of docetaxel:
- A. It is used as a reserve drug for refractory breast and ovarian cancer
 - B. It is a selective estrogen receptor modulator used for breast cancer
 - C. It is effective only in estrogen receptor positive breast cancer
 - D. Both 'B' and 'C' are correct
9. The following cytotoxic drug acts by inhibiting depolymerisation of tubulin and thus producing abnormal arrays of microtubules:
- A. Paclitaxel
 - B. Vinblastine
 - C. Etoposide
 - D. Mitoxantrone
10. Vinca alkaloids exert antitumor activity by:
- A. Activating topoisomerase II to cause breaks in DNA strands
 - B. Crosslinking DNA strands
 - C. Inhibiting DNA mediated RNA synthesis
 - D. Inhibiting polymerization of tubulin to form intracellular microtubules