1. Tubocurarine is a nicotinic receptor antagonist.
   - True  - False

2. In a dose-response curve ED50 represents the dose which elicits 50% of the maximal response and Emax represents the dose which elicits maximum response.
   - True  - False

3. IC50 represents the concentration of antagonist needed to displace the ligand from 50% of the available receptors.
   - True  - False

4. Co-administration of tryptophan and an MAOI should be avoided.
   - True  - False

5. Mianserin causes the blockade of alpha 2 adrenoceptors and 5-HT2 receptors.
   - True  - False

6. d-serine is an NMDA receptor antagonist.
   - True  - False

7. d-cycloserine is a partial agonist at the NMDA receptor glycine site.
   - True  - False

8. In some trials, sigma receptor antagonists have shown an antipsychotic effect.
   - True  - False

9. GABA-A receptor agonists might be of some use as adjuvants in the treatment of schizophrenia.
   - True  - False

10. Omega-3 fatty acids are shown to be increased in the neuronal membranes of schizophrenic patients.
    - True  - False

11. Antidepressant drugs are not associated with tolerance and craving.
    - True  - False

12. Iloperidone is a new antipsychotic with very high affinity for alpha-2 adrenoceptors.
    - True  - False

13. Methylphenidate is a controlled class B drug in the UK used in the treatment of attention deficit hyperactivity disorder.
    - True  - False

14. More than 90% of unchanged aripiprazole is renally excreted.
    - True  - False

15. In the treatment of drug addiction, diamorphine can be prescribed in the UK without a special licence.
    - True  - False

16. Coproxamol overdosage presents with pinpoint pupils and respiratory depression.
    - True  - False

17. Neostigmine reverses the action of the depolarising muscle relaxant suxamethonium.
    - True  - False

18. Anticholinesterases such as neostigmine reverse the effects of the non-depolarised muscle relaxant drugs.
    - True  - False

    - True  - False

20. Dantrolene worsens the symptoms of malignant hyperthermia.
    - True  - False

21. Active metabolites are rarely produced by phase 2 metabolism involving sulphation, acetylation or conjugation with glucuronic acid.
    - True  - False

22. Grapefruit juice induces CYP3A4 activity in the gut mucosa.
    - True  - False

23. The excretion of amphetamine is increased if the urine is strongly acid.
    - True  - False

24. Hydroxyrisperidone is an inactive metabolite.
    - True  - False
25. Plasma concentration of clozapine rises significantly when fluvoxamine is added.  
26. The blood test for serum lithium level measurement should preferably be done 24 hours after the previous dose.  
27. Low plasma albumin leads to lithium toxicity.  
28. Increased progesterone secretion during pregnancy suppresses hepatic metabolism of drugs.  
29. DOPA decarboxylase converts dopamine to noradrenalin.  
30. D1 and D5 receptors stimulate adenylate cyclase to form cyclic – AMP as a second messenger.  
31. 5HT2C antagonists cause weight loss.  
32. 5HT2A antagonists reduce hallucinations caused by psychotomimetic drugs.  
33. Hallucinations may be caused by H2 antagonists (e.g. ranitidine and cimetidine).  
34. Labelled ligands such a raclopride and epidepride are used to measure the receptor occupancy of the antipsychotic.  
35. Clozapine has a low ratio of receptor-binding affinities to 5-HT2A and D2 sites.  
36. Nausea and insomnia are the features of cholinergic rebound following the abrupt discontinuation of anticholinergic drugs.  
37. Higher doses of procyclidine cause hallucinations, euphoria and dilated pupils.  
38. Orphenadrine has more stimulant effects than procyclidine or benzhexol.  
39. Hyoscine is useful in the treatment of clozapine-induced hypersalivation.  
40. Acamprosate is used in the treatment of alcohol detoxification.  
41. Lofexidine causes more hypotension than clonidine.  
42. Lofexidine is alpha2 adrenergic agonist used in the treatment of acute opiate withdrawal syndrome.  
43. Buprenorphine has both opioid agonist and antagonist actions.  
44. Hormone replacement therapy in women has been reported to be associated with an increased risk of developing Alzheimer’s disease.  
45. Aspirin and dipyridamole are beneficial in the treatment of vascular dementia.  
46. Galantamine was originally extracted from daffodils.  
47. Traces of lithium are absent normally in the human body.  
48. A low-sodium diet increases serum lithium levels.  
49. PET studies have shown that the D2 receptor occupancy by clozapine is much higher than by conventional anti psychotics.  
50. Study of how the body handles a drug is pharmacokinetics.
1. Tubocurarine is a nicotinic receptor antagonist.  
Ans. True.

2. In a dose-response curve ED50 represents the dose which elicits 50% of the maximal response and Emax represents the dose which elicits maximum response.  
Ans. True.

3. IC50 represents the concentration of antagonist needed to displace the ligand from 50% of the available receptors.  
Ans. True.

4. Co-administration of tryptophan and an MAO1 should be avoided.  
Ans. False. Co-administration of tryptophan and an MAO1 is useful in the treatment of resistant depression.

5. Mianserin causes the blockade of alpha 2 adrenoceptors and 5-HT2 receptors.  
Ans. True.

6. d-serine is an NMDA receptor antagonist.  
Ans. False. d-serine is an NMDA receptor agonist.

7. d-cycloserine is a partial agonist at the NMDA receptor glycine site.  
Ans. True.

8. In some trials, sigma receptor antagonists have shown an antipsychotic effect.  
Ans. True. For example, panamesine

9. GABA-A receptor agonists might be of some use as adjuvants in the treatment of schizophrenia.  
Ans. True. GABA-A receptors are inhibitory and GABA-B receptors are stimulatory on the dopamine receptors.

10. Omega-3 fatty acids are shown to be increased in the neuronal membranes of schizophrenic patients.  
Ans. False. They are deficient. This is the basis of the phospholipid and membrane hypothesis.

11. Antidepressant drugs are not associated with tolerance and craving.  
Ans. True.

12. Iloperidone is a new antipsychotic with very high affinity for alpha-2 adrenoceptors.  
Ans. True.

13. Methylphenidate is a controlled class B drug in the UK used in the treatment of attention deficit hyperactivity disorder.  
Ans. True.

14. More than 90% of unchanged aripiprazole is renally excreted.  
Ans. False. Less than 1%.

15. In the treatment of drug addiction, diamorphine can be prescribed in the UK without a special licence.  
Ans. False: A special licence issued by the Home Secretary is required to prescribe diamorphine (heroin), dipipanone and cocaine.

16. Coproxamol overdosage presents with pinpoint pupils and respiratory depression.  
Ans. True.

17. Neostigmine reverses the action of the depolarising muscle relaxant suxamethonium.  
Ans. False. It prolongs the action of suxamethonium.
18. Anticholinesterases such as neostigmine reverse the effects of the non-depolarised muscle relaxant drugs.
Ans. True.

Ans. True.

20. Dantrolene worsens the symptoms of malignant hyperthermia.
Ans. False. It is used in the treatment of malignant hyperthermia.

21. Active metabolites are rarely produced by phase 2 metabolism involving sulphation, acetylation or conjugation with glucuronic acid.
Ans. True.

22. Grapefruit juice induces CYP3A4 activity in the gut mucosa.
Ans. False. It inhibits it.

23. The excretion of amphetamine is increased if the urine is strongly acid.
Ans. True. Amphetamine is a weak base.

24. Hydroxyrisperidone is an inactive metabolite.
Ans. False. It is an active metabolite.

25. Plasma concentration of clozapine rises significantly when fluvoxamine is added.
Ans. True. Fluvoxamine inhibits CYP1A2.

26. The blood test for serum lithium level measurement should preferably be done 24 hours after the previous dose.
Ans. False. It should be done after 12 hours.

27. Low plasma albumin leads to lithium toxicity.
Ans. False. Lithium is not protein bound.

28. Increased progesterone secretion during pregnancy suppresses hepatic metabolism of drugs.
Ans. True.

29. DOPA decarboxylase converts dopamine to noradrenalin.
Ans. False. It is converted by dopamine-ß-hydroxylase.

30. D1 and D5 receptors stimulate adenylate cyclase to form cyclic – AMP as a second messenger.
Ans. True.

31. 5HT2C antagonists cause weight loss.
Ans. False. They cause weight gain.

32. 5HT2A antagonists reduce hallucinations caused by psychotomimetic drugs.
Ans. True.

33. Hallucinations may be caused by H2 antagonists (e.g. ranitidine and cimetidine).
Ans. True.

34. Labelled ligands such a raclopride and epidepride are used to measure the receptor occupancy of the antipsychotic.
Ans. True.

35. Clozapine has a low ratio of receptor-binding affinities to 5-HT2A and D2 sites.
Ans. False. It has a high ratio.

36. Nausea and insomnia are the features of cholinergic rebound following the abrupt discontinuation of anticholinergic drugs.
Ans. True.
37. Higher doses of procyclidine cause hallucinations, euphoria and dilated pupils.
An. True.

38. Orphenadrine has more stimulant effects than procyclidine or benzhexol.
An. False. It is less of a stimulant.

39. Hyoscine is useful in the treatment of clozapine-induced hypersalivation.
An. True.

40. Acamprosate is used in the treatment of alcohol detoxification.
An. False. It is used as an anti-craving drug for the maintenance of abstinence from alcohol.

41. Lofexidine causes more hypotension than clonidine.
An. False: It causes less hypotension than clonidine

42. Lofexidine is alpha2 adrenergic agonist used in the treatment of acute opiate withdrawal syndrome.
An. True.

43. Buprenorphine has both opioid agonist and antagonist actions.
An. True.

44. Hormone replacement therapy in women has been reported to be associated with an increased risk of developing Alzheimer’s disease.
An. False. It is associated with a reduced risk.

45. Aspirin and dipyridamole are beneficial in the treatment of vascular dementia.
An. True.

46. Galantamine was originally extracted from daffodils.
An. True.

47. Traces of lithium are absent normally in the human body.
An. False.

48. A low-sodium diet increases serum lithium levels.
An. True.

49. PET studies have shown that the D2 receptor occupancy by clozapine is much higher than by conventional anti-psychotics.
An. False. D2 receptor occupancy by clozapine is 42-60% of that of conventional anti-psychotics.

50. Study of how the body handles a drug is pharmacokinetics.
An. True.
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