

- a) ~~Levodopa~~ d) Cocaine
 b) Procaine
 c) Tetracaine
8. A 51 years old patient with parkinsonism is being maintained on levodopa-carbidopa with adjunctive use of low doses of entacapone but continues to have off periods of akinesia. The most appropriate drug to rescue the patient but that will only provide temporary relief is:
- a) Tolcapone b) Apomorphine
 c) Ropinirole
 d) Selegiline
9. Select the most important mechanism of anticonvulsant action of Carbamazepine.
- a) Facilitation of GABAergic inhibitory transmission
 b) Hyperpolarization of neurones
 c) Interaction with Ca^{2+} channels to promote Ca^{2+} influx
 d) Prolongation of voltage sensitive neuronal Na^{+} channel inactivation
10. The mechanism of action of barbiturates differs from that of benzodiazepines in that they:
- a) Act as inverse agonists at the benzodiazepine receptor
 b) Increase the frequency of chloride channel opening without affecting its life time
 c) Have GABA-mimetic actions by increasing the duration of opening of chloride channel.
 d) Do not affect the GABA-benzodiazepine receptor-chloride channel complex
11. Which of the following antipsychotic drugs has the high risk of potentially fatal agranulocytosis and risk of seizures at high doses?
-
- a) Clozapine
-
- c) Risperidone
-
-
- b) Haloperidol
-
- d) Chlorpromazine
12. Which of the following vitamins reduces the beneficial effects of levodopa by enhancing its extracerebral metabolism?
-
- a) Pyridoxine
-
- d) Riboflavin
-
-
- b) Thiamine
-
-
- c) Tocopherol
13. A 72-year-old man develops acute urinary retention and blurred vision after taking an antidepressant for 5 days. Which of the following medications is most likely to cause such side effects?
-
- a) Venlafaxine
-
- c) Bupropion
-
-
- b) Amitriptyline
-
- d) Escitalopram
14. A woman who has been taking oral contraceptives (estrogen plus progestin) for several years is diagnosed with epilepsy and started phenytoin. What is the most likely consequence of adding phenytoin?
- a) Agranulocytosis requiring stoppage of both drugs immediately
 b) Breakthrough seizures from increased phenytoin clearance
 c) Thromboembolism from the estrogen component of the contraceptive
 d) Reduced contraceptive efficacy leading to conception



Time allowed: 25 min

Max Marks: 25

- Which of the following inhaled anaesthetics decreases methionine synthase activity and causes megaloblastic anaemia?
a) Desflurane
b) Halothane
c) Nitrous oxide
d) Sevoflurane
- Which of the following agents is used to accelerate recovery from the sedative actions of intravenous benzodiazepines?
a) Naloxone
b) Flumazenil
c) Ketamine
d) Fomepizole
- Which of the following is the most suitable drug for a 6-year-old girl suffering from Absence seizures with occasional Generalized Tonic- Clonic seizures:
a) Ethosuccimide
b) Carbamazepine
c) Phenytoin
d) Sodium valproate
- A 10-year-old child is suffering from nocturnal enuresis for which he is given imipramine by physician. After few days of taking medication, his complaints decline dramatically. Which of the following best describes the effect of drug.
a) Blocks cholinergic receptors in bladder
b) Releases antidiuretic hormone
c) Reduce renal blood flow and thus urinary output
d) Alleviates sign and symptoms of psychosis.
- A 24 years old female patient is given phenytoin by the physician for generalised seizures. Which of the following best describes the properties of phenytoin?
a) Displaces sulphonamides from plasma protein binding site
b) Half life is increased if given with phenobarbital
c) It is safe in pregnancy
d) It is a potent enzyme inhibitor.
- An 18 years old college boy was taking morphine for the last 1 year. He now presents in emergency department with complaints of drowsiness, disorientation, cyanosis, pupils are constricted, yellow clammy skin and shallow breathing. His BP is 90/60mmHg. Which one of the following drugs is given to overcome the effects of morphine:
a) Flumazenil
b) Buspirone
c) Naloxone
d) Ketamine
- A child requires multiple minor surgical procedures in the nasopharynx. Which drug has high surface local anaesthetic activity and intrinsic vasoconstrictor actions that reduce bleeding in mucous membranes?

22. Four new potential inhalational anesthetics (P, Q, R and S) were tested in laboratory animals. Some pharmacological parameters of each drug are recorded in the table below: Which of the following drug has the highest potency?

Drug	MAC	Induction
P	5.5	Slow
Q	45.2	Fast
R	12.7	Fast
S	0.9	Slow

- a) Drug P
b) Drug Q
c) Drug R
d) Drug S
23. A 45-year-old man with a long history of bipolar disorder had been stable on a maintenance lithium treatment for the past year. Which of the following best describes a current working hypothesis about the molecular mechanism of action of lithium?
- a) Increased serotonin reuptake into serotonergic terminals
b) Increased synthesis of inositol monophosphate
c) Decreased synthesis of inositol triphosphate and diacylglycerol
d) Increased synthesis of adenylyl cyclase (AC)
24. A 19-year-old female has been taking antidepressants over a certain period of time. One night, she makes herself a snack of chicken liver patty and cheese. She soon develops headache, nausea and palpitations. She goes to ER where her BP is found to be 170/100. What antidepressant did she take?
- a) Phenelzine
b) Nortriptyline
c) Sertraline
d) Trazodone
25. A 62-year-old woman recovering from surgical repair of multiple fractures was complaining of severe pain. A standard dose of morphine was given intramuscularly. Which of the following adverse effects most likely occurred in this patient?
- a) Pulmonary edema
b) Miosis
c) Dry cough
d) Diarrhea

15. Which of the following side effects of chlorpromazine and phenothiazine neuroleptics is attributed towards dopamine receptor blockade?
- Dry mouth, dry eyes, constipation
 - Orthostatic hypotension, failure to ejaculate
 - Hyperprolactinemia, gynecomastia and impotence
 - Weight gain
16. Which of the following drugs has a high affinity for 5-HT₂ receptors in the brain, does not cause extrapyramidal dysfunction or hematotoxicity, and is reported to increase the risk of significant QT prolongation:
- Clozapine
 - Haloperidol
 - Chlorpromazine
 - Ziprasidone
17. A 65 years old man, taking therapy for Parkinson's disease, comes to the OPD, with complaints of passing brown coloured urine. Which of the following drugs may have lead to this condition, in this patient?
- Diazepam
 - Levodopa
 - Amantadine
 - Tolcapone
18. A 36 years old diagnosed schizophrenic, taking anti psychotic therapy for the last 6 months, suddenly developed tremors at rest, abnormal movements of the limbs and muscle rigidity. Based on history and examination, the patient was diagnosed as having Drug induced Parkinsonism. What would be next step in drug therapy?
- To prescribe Anti muscarinic
 - To prescribe Antidepressants
 - To increase the dosage of antipsychotics
 - To change the class of antipsychotics
19. An 18 year old girl who underwent an emergency appendectomy, post operatively she was diagnosed as having acute intermittent porphyria when she complained of abdominal pain, nausea, vomiting, constipation and dark coloured urine. Which of the following anesthetic agents is most likely to precipitate this attack?
- Succinyl choline
 - Methohexital
 - Halothane
 - Midazolam
20. Select the antiepileptic drug that is a preferred treatment for post herpetic neuralgia and pain due to diabetic neuropathy:
- Carbamazepine
 - Gabapentin
 - Lamotrigine
 - Primidone
21. A 32 years old man was admitted to the hospital for reduction of a dislocated shoulder. Sedation with diazepam was supplemented with 30% concentration of nitrous oxide. Which of the following effects most likely occurred after nitrous oxide administration?
- Rapidly achieved unconsciousness
 - Excellent skeletal muscle relaxation
 - Very profound analgesia
 - Decrease in blood pressure