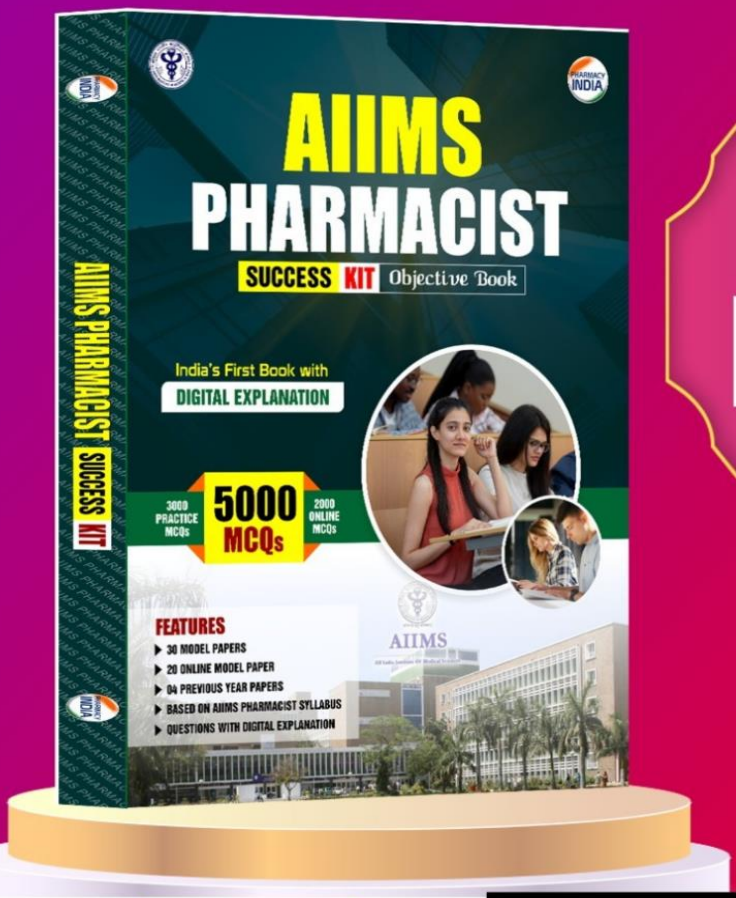
AIIMS CRE

MODEL PAPER-1

DIGITAL EXPLANATION

FOLLOW US



New Book

AIIMS PHARMACIST

SUCCESS KIT Objective Book

FOR PHARMACIST STUDENTS

CALL FOR ORDER

6395596959,
8006781759

COD AVAILABLE

Flipkart

amazon

3000 PRACTICE MCQs | 5000 MCQs | 2000 ONLINE MCQs

FEATURES

- 30 MODEL PAPERS
- BASED ON AIIMS PHARMACIST SYLLABUS
- 04 PREVIOUS YEAR PAPERS
- 20 ONLINE MODEL PAPER
- QUESTIONS WITH DIGITAL EXPLANATION

Model Paper – 1 | Detailed Solutions

1. What does ---------- include?
Correct Answer: (d) Distribution of drugs in the organism
Explanation:

- Pharmacokinetics involves **absorption**, **distribution**, **metabolism**, and **excretion** (ADME) of drugs.
- It describes the movement of a drug through the body, determining its therapeutic and toxic effects.
- Understanding pharmacokinetics helps in optimizing drug dosage and schedules for maximum benefit and minimum harm.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 60.

---

2. Pharmacodynamics ---------- of following?
Correct Answer: (a) Mechanism of drug action
Explanation:

- Pharmacodynamics studies the **biochemical** and **physiological effects** of drugs on the body.
- It explores how drugs interact with **receptors** to produce effects, including therapeutic and toxic outcomes.
- Key concepts include **drug-receptor interactions**, **dose-response relationships**, and the difference between **efficacy** and **potency**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 10.

---

3. What does ---------- means?
Correct Answer: (c) Fraction of an uncharged drug reaching the systemic circulation
Explanation:

- Bioavailability refers to the **proportion of a drug** that enters the systemic circulation in its active form after administration.

- It is a key pharmacokinetic parameter, crucial for determining the **effectiveness** of oral drugs.
- Factors affecting bioavailability include **drug solubility**, **stability in the gastrointestinal tract**, and **first-pass metabolism**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 68.

---

4. What is the important characteristic ---------- administration?
Correct Answer: (d) Oily solutions can be injected

Explanation:

The intramuscular (IM) route is characterized by the following important features:

1. **Injection of Oily Solutions**: The IM route allows for the administration of oily formulations, which are used for sustained and controlled drug release over time.
2. **Absorption of Poorly Soluble Drugs**: IM injections are suitable for drugs that are not easily soluble in water, ensuring effective delivery.
3. **Tolerance to Irritant Drugs**: Muscles can handle drugs that may irritate subcutaneous tissues, reducing the likelihood of severe reactions.
4. **Faster Absorption**: The IM route provides quicker drug absorption compared to oral administration due to bypassing the gastrointestinal tract.
5. **Emergency Use**: It is effective in emergencies such as **acute psychosis** and **status epilepticus** when rapid or sustained action is required.

Reference:

Katzung, B. G., Masters, S. B., & Trevor, A. J. (2021). *Basic and Clinical Pharmacology* (15th ed.). McGraw Hill Education.

---

5. Elimination rate constant (Kelim) is ---------- parameter?
Correct Answer: (d) Half-life (t½)
Explanation:

- The elimination rate constant (**Kelim**) represents the **fraction of a drug eliminated per unit of time**.
- It is directly related to the **half-life (t½)** of the drug, which is the time required to reduce the drug's plasma concentration by half.
- Formula: **t½ = 0.693 / Kelim**, indicating that as Kelim increases, the half-life decreases.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 81.

---

6. "Affinity" is a measure of ---------- receptor?
Correct Answer: (b) Drug's binding to a receptor
Explanation:

- **Affinity** refers to the strength with which a drug binds to its target receptor.
- High-affinity drugs bind effectively even at low concentrations, enhancing their therapeutic effect.
- Affinity determines the **potency** of a drug but does not guarantee its ability to activate the receptor (**efficacy**).

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 48.

---

7. What term is used to describe a ---------- weeks to develop?
Correct Answer: (c) Tolerance
Explanation:

- **Tolerance** is a phenomenon where repeated drug exposure results in a **gradual decrease in its effectiveness**.
- It can take days or weeks to develop and may require higher doses for the same therapeutic effect.
- Mechanisms include **receptor desensitization**, **upregulation**, or **enhanced drug metabolism**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 15.

---

8. Characteristic unwanted reaction ---------- property of a drug?
Correct Answer: (a) Idiosyncrasy
Explanation:

- **Idiosyncrasy** refers to an **unpredictable and rare drug reaction** that is unrelated to the drug's dose or pharmacodynamics.
- It often results from **genetic differences** in drug metabolism or immune responses.
- Unlike allergies, idiosyncratic reactions are not mediated by the immune system.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 95.

---

9. Which one of the ---------- anesthetic action?
Correct Answer: (a) Intermediate chain
Explanation:

- The **intermediate chain** in local anesthetics influences the **duration of action** and **potency**.
- It determines the balance between **lipophilicity** and **hydrophilicity**, affecting the drug's diffusion and binding to nerve membranes.
- Local anesthetics with longer intermediate chains typically have prolonged action.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 100.

---

10. Indicate the local ---------- spinal anesthesia?
Correct Answer: (d) Bupivacaine
Explanation:

- **Bupivacaine** is commonly used for spinal anesthesia due to its **long duration of action** and **strong potency**.
- It blocks nerve conduction by inhibiting sodium ion channels, causing reversible loss of sensation and motor function.
- Bupivacaine is preferred for procedures requiring prolonged anesthesia.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 102.

---

11. Which of the following ---------- universal anesthetic?
Correct Answer: (c) Lidocaine
Explanation:

- **Lidocaine** is termed a "universal anesthetic" because it is effective for various applications, including **infiltration, nerve blocks, and surface anesthesia**.
- It has a rapid onset and moderate duration, making it versatile in clinical practice.
- Additionally, it is widely used in combination with epinephrine to prolong its action.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 105.

---

12. Indicate a reversible ---------- cholinesterase inhibitor?
Correct Answer: (c) Physostigmine
Explanation:

- **Physostigmine** is a reversible cholinesterase inhibitor that increases acetylcholine levels by preventing its breakdown.
- It is used in conditions like **myasthenia gravis** and **anticholinergic toxicity**.
- Unlike irreversible inhibitors, its effect diminishes as the drug is metabolized and eliminated.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 123.

13. Parasympathomimetic drugs ---------- bradycardia?
Correct Answer: (c) Bradycardia
Explanation:

- Parasympathomimetic drugs mimic the action of the **parasympathetic nervous system** by stimulating muscarinic and nicotinic receptors.
- They induce **bradycardia** (slowing of heart rate), **miosis**, and **increased glandular secretions**.
- Examples include **pilocarpine** and **bethanechol**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 142.

---

14. Which of the following ---------- shortest duration of action?
Correct Answer: (a) Acetylcholine
Explanation:

- **Acetylcholine** has the shortest duration of action among direct-acting cholinomimetics because it is rapidly hydrolyzed by **acetylcholinesterase**.
- Its use is limited due to its transient effects, but it is essential for understanding cholinergic neurotransmission.
- Synthetic analogs with longer durations are preferred for therapeutic purposes.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 145.

---

15. Indicate the skeletal ---------- depolarizing agent?
Correct Answer: (c) Succinylcholine
Explanation:

- **Succinylcholine** is a depolarizing neuromuscular blocker used for **short-term muscle relaxation** in surgeries.

- It works by mimicking acetylcholine at the neuromuscular junction, causing persistent depolarization and subsequent paralysis.
- Its rapid onset and short duration make it ideal for procedures like endotracheal intubation.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 155.

---

16. Atropine is frequently ---------- reduce secretions?
Correct Answer: (b) Secretions
Explanation:

- **Atropine** reduces **salivary and bronchial secretions** by blocking muscarinic receptors.
- It is commonly used before inhalation anesthesia to prevent **aspiration** and minimize airway complications.
- Atropine also counteracts **vagal reflexes**, reducing the risk of bradycardia during surgery.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 163.

---

17. Which of the following ---------- Parkinson's disease?
Correct Answer: (a) Benztropine
Explanation:

- **Benztropine** is an anticholinergic drug used to manage **Parkinson's disease** and drug-induced extrapyramidal symptoms.
- It reduces **tremors and rigidity** by blocking cholinergic activity in the basal ganglia.
- This helps restore the balance between **dopaminergic** and **cholinergic** systems in the brain.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 170.

---

18. Which of the following ---------- asthma?
Correct Answer: (b) Ipratropium
Explanation:

- **Ipratropium** is an anticholinergic bronchodilator used in the management of **asthma** and **COPD**.
- It works by blocking muscarinic receptors in the airways, resulting in **bronchodilation**.
- Unlike beta-agonists, it has minimal cardiac effects, making it safer for certain patients.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 173.

---

19. Which is effective ---------- poisoning?
Correct Answer: (d) Atropine
Explanation:

- **Atropine** is the first-line antidote for **mushroom poisoning** caused by muscarine-containing mushrooms.
- It counteracts the excessive activation of muscarinic receptors, alleviating symptoms such as **salivation, bradycardia, and bronchospasm**.
- Administered intravenously, it rapidly reduces life-threatening effects.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 178.

---

20. Indicate muscles, which ---------- recover more rapidly?
Correct Answer: (d) Diaphragm
Explanation:

- The **diaphragm** is more resistant to neuromuscular blockers and recovers faster than other muscles like the hand or leg.
- This characteristic is critical in surgeries, as rapid recovery of diaphragm function ensures the **resumption of spontaneous breathing**.

- The order of muscle recovery: **diaphragm > trunk > limbs**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 185.

---

21. Which of the following ---------- cardiac stimulation?
Correct Answer: (b) Terbutaline
Explanation:

- **Terbutaline** is a selective **beta-2 adrenergic agonist** that causes bronchodilation without significant cardiac stimulation.
- It is used in the treatment of **asthma** and **COPD** to relieve bronchospasm.
- The lack of cardiac stimulation is due to its selective action on **beta-2 receptors** in the lungs rather than **beta-1 receptors** in the heart.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 195.

---

22. Indicate the sympathomimetics ---------- nerve block?
Correct Answer: (a) Epinephrine
Explanation:

- **Epinephrine** is often combined with local anesthetics to **prolong the duration** of nerve block by causing **vasoconstriction**.
- Vasoconstriction reduces the **systemic absorption** of the anesthetic, enhancing its effect at the target site.
- It also minimizes bleeding at the injection site.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 202.

---

23. Indicate the agent of ---------- anaphylactic shock?
Correct Answer: (d) Epinephrine
Explanation:

- **Epinephrine** is the drug of choice for the emergency management of **anaphylactic shock**.
- It acts on **alpha, beta-1, and beta-2 adrenergic receptors**, reversing bronchospasm, hypotension, and edema.
- Administered intramuscularly, it rapidly restores blood pressure and improves airway patency.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 205.

---

24. Indicate the adrenoreceptor ---------- alkaloid?
Correct Answer: (c) Reserpine
Explanation:

- **Reserpine** is a rauwolfia alkaloid that acts as an **adrenoreceptor antagonist** by depleting norepinephrine from presynaptic nerve terminals.
- It is used to manage **hypertension** but is less commonly prescribed due to its side effects, including **depression** and **sedation**.
- Reserpine has a long duration of action due to its irreversible binding.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 210.

---

25. Hypnotic drugs are ---------- disorders?
Correct Answer: (b) Sleep disorders
Explanation:

- **Hypnotic drugs** are used to treat **insomnia** and other sleep-related disorders by inducing or maintaining sleep.

- They include **benzodiazepines** (e.g., diazepam), **non-benzodiazepines** (e.g., zolpidem), and **barbiturates**.
- These drugs act on the **GABA-A receptor**, enhancing its inhibitory action in the central nervous system.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 233.

---

26. Which of the following ---------- hepatic function?
Correct Answer: (a) Zolpidem
Explanation:

- **Zolpidem** is a non-benzodiazepine hypnotic preferred in patients with **limited hepatic function** due to its minimal liver metabolism.
- It selectively acts on **GABA-A receptors**, producing sedation without significant muscle relaxation or anxiolysis.
- Zolpidem has a short half-life, reducing the risk of residual sedation.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 235.

---

27. Which of the following ---------- short-acting drug?
Correct Answer: (c) Thiopental
Explanation:

- **Thiopental** is an ultra-short-acting **barbiturate** used for the induction of anesthesia.
- Its rapid onset and short duration result from its high **lipid solubility**, allowing it to cross the blood-brain barrier quickly.
- Thiopental is metabolized by the liver, and its effects subside as it redistributes to peripheral tissues.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 237.

28. The most effective drug ---------- status epilepticus?

Correct Answer: (c) Diazepam

Explanation:

- **Diazepam** is the first-line drug for managing **generalized tonic-clonic status epilepticus**.
- It enhances **GABAergic inhibition**, leading to a calming effect on overactive neuronal activity.
- Administered intravenously, it provides rapid control of seizures but is often followed by longer-acting agents like phenytoin.

Reference:

K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 245.

---

29. The most dangerous ---------- large overdoses?

Correct Answer: (a) Respiratory depression

Explanation:

- The most dangerous effect of **antiepileptic drugs** in large overdoses is **respiratory depression**, which can be life-threatening.
- This occurs due to excessive suppression of the central nervous system.
- Drugs like barbiturates and benzodiazepines, commonly used in epilepsy, have a narrow therapeutic index.

Reference:

K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 250.

---

30. Which of the following ---------- Parkinson's disease?

Correct Answer: (d) All of the above

Explanation:

Parkinson's disease is a neurodegenerative disorder primarily caused by the depletion of **dopamine** in the brain, particularly in the substantia nigra. However, other neurotransmitters also play roles in the disease:

1. **Dopamine**:
    - The primary deficit in Parkinson's disease is the loss of dopamine-producing neurons. Dopamine is essential for controlling movement and coordination.
    - This deficit results in motor symptoms such as tremors, rigidity, and bradykinesia.
2. **Acetylcholine**:
    - There is an imbalance between dopamine and acetylcholine in Parkinson's disease. With dopamine levels reduced, the relative activity of acetylcholine increases, contributing to some of the symptoms.
3. **Glutamate**:
    - Glutamate is involved in excitatory signaling in the brain. Dysregulation of glutamatergic pathways can exacerbate neurodegeneration in Parkinson's disease.

Thus, while dopamine depletion is the hallmark of the disease, other neurotransmitters such as acetylcholine and glutamate are also implicated in its pathophysiology.

Reference:

Goetz, C. G. (2011). *Textbook of Clinical Neurology* (3rd ed.). Elsevier.
Katzung, B. G., Masters, S. B., & Trevor, A. J. (2021). *Basic and Clinical Pharmacology* (15th ed.). McGraw Hill Education.

---

31. Indicate the drug ---------- syndromes?
Correct Answer: (a) Chlorpromazine
Explanation:

- **Chlorpromazine**, a typical antipsychotic, can induce **Parkinsonian syndromes** as a side effect due to its dopamine receptor-blocking action.
- These symptoms are referred to as **extrapyramidal side effects (EPS)**.

- They occur because dopamine blockade in the **nigrostriatal pathway** disrupts normal motor function.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 300.

---

32. Which of the following ---------- dehydrogenase?
Correct Answer: (c) Disulfiram
Explanation:

- **Disulfiram** inhibits **aldehyde dehydrogenase**, leading to the accumulation of **acetaldehyde** after alcohol consumption.
- This causes unpleasant symptoms such as **flushing, nausea, and tachycardia**, discouraging alcohol intake.
- It is used in the treatment of **alcohol dependence** as part of aversion therapy.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 320.

---

33. The drug which decreases ---------- renewed drinking?
Correct Answer: (c) Naltrexone
Explanation:

- **Naltrexone** is an opioid antagonist that blocks the **rewarding effects** of alcohol by inhibiting opioid receptors in the brain.
- It helps reduce **craving** and the likelihood of relapse in individuals with alcohol dependence.
- Unlike disulfiram, it does not cause aversion but diminishes the euphoric effects of alcohol.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 322.

---

34. The combination of disulfiram ---------- acetaldehyde?
Correct Answer: (d) Acetaldehyde
Explanation:

- Disulfiram inhibits aldehyde dehydrogenase, leading to the accumulation of **acetaldehyde**, a toxic metabolite of ethanol.
- Elevated acetaldehyde levels cause unpleasant symptoms such as **nausea, vomiting, and flushing**, reinforcing alcohol abstinence.
- This mechanism underpins disulfiram's role in aversion therapy.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 323.

---

35. Which of the following ---------- methanol poisoning?
Correct Answer: (b) Fomepizole
Explanation:

- **Fomepizole** inhibits alcohol dehydrogenase, preventing the metabolism of methanol and ethylene glycol into toxic metabolites.
- It is the antidote of choice for methanol poisoning, protecting against **metabolic acidosis** and end-organ damage.
- Intravenous administration ensures rapid therapeutic effects.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 325.

---

36. Narcotic analgesics should ---------- pain?
Correct Answer: (a) Relieve severe pain
Explanation:

- **Narcotic analgesics**, such as morphine, act on **opioid receptors** in the CNS to relieve severe and chronic pain.
- They modulate pain perception and response while producing sedation and euphoria.

- These drugs are particularly effective in managing **cancer pain** and post-surgical pain.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 350.

---

37. Which of the following ---------- obstetric labor?
Correct Answer: (c) Meperidine
Explanation:

- **Meperidine** is an opioid analgesic used in **obstetric labor** to manage moderate to severe pain.
- It has a shorter duration of action and causes less respiratory depression in the neonate compared to other opioids.
- Meperidine is administered cautiously to minimize potential side effects like sedation and nausea.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 353.

---

38. Which of the following ---------- pulmonary edema?
Correct Answer: (a) Morphine
Explanation:

- **Morphine** is effective in relieving **acute pulmonary edema** by reducing **preload** and **afterload**, thereby decreasing cardiac work.
- It acts on opioid receptors to alleviate **anxiety** and improve breathing by lowering venous return.
- Morphine is often used in combination with diuretics and oxygen therapy.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 355.

---

39. Which of the following ---------- derivative?
Correct Answer: (c) Aspirin
Explanation:

- **Aspirin** is a salicylic acid derivative and acts as a **non-narcotic analgesic** with anti-inflammatory, antipyretic, and analgesic properties.
- It irreversibly inhibits **cyclooxygenase enzymes (COX-1 and COX-2)**, reducing prostaglandin synthesis.
- Aspirin is widely used for pain relief, fever reduction, and as an antiplatelet agent.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 375.

---

40. Indicate the non-narcotic ---------- effect?
Correct Answer: (b) Paracetamol
Explanation:

- **Paracetamol** (acetaminophen) is a non-narcotic analgesic with no significant anti-inflammatory effect.
- It selectively inhibits **COX enzymes** in the central nervous system, relieving pain and fever without gastrointestinal side effects.
- Paracetamol is a preferred option for patients with gastric ulcers or aspirin intolerance.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 377.

---

41. Neuroleptics are ---------- psychosis?
Correct Answer: (b) Psychosis
Explanation:

- **Neuroleptics**, also known as antipsychotic drugs, are used to treat **psychosis**, including schizophrenia and bipolar disorder.
- They primarily work by blocking **dopamine receptors (D2)**, reducing symptoms like hallucinations, delusions, and agitation.

- Neuroleptics are classified into **typical** (e.g., haloperidol) and **atypical** (e.g., risperidone) agents based on their receptor binding profiles.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 395.

---

42. Parkinsonian symptoms and ---------- dopamine in?
Correct Answer: (a) The nigrostriatal system
Explanation:

- Parkinsonian symptoms such as tremors, rigidity, and bradykinesia are caused by dopamine blockade in the **nigrostriatal pathway**.
- This pathway regulates motor function, and disruption leads to **extrapyramidal side effects (EPS)**.
- These symptoms are often associated with long-term use of **typical antipsychotics**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 400.

---

43. Which of the following ---------- typical?
Correct Answer: (c) Haloperidol
Explanation:

- **Haloperidol** is a typical antipsychotic with high potency and strong **D2 receptor-blocking** activity.
- It is used to treat **schizophrenia**, **acute psychosis**, and **Tourette's syndrome**.
- Its side effects include **EPS** and **hyperprolactinemia** due to dopamine receptor antagonism.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 405.

---

44. Lithium carbonate is ---------- bipolar disorder?
Correct Answer: (b) Bipolar disorder
Explanation:

- **Lithium carbonate** is a mood stabilizer effective in the management of **bipolar disorder**, particularly in preventing manic and depressive episodes.
- It stabilizes neuronal activity by modulating **neurotransmitter release** and **intracellular signaling**.
- Regular monitoring of **serum lithium levels** is required to avoid toxicity.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 410.

---

45. Which of the following ---------- antidepressants?
Correct Answer: (b) Amitriptyline
Explanation:

- **Amitriptyline** is a tricyclic antidepressant (TCA) used to treat **depression**, **neuropathic pain**, and **migraine prophylaxis**.
- It inhibits the reuptake of **serotonin** and **norepinephrine**, increasing their levels in the synaptic cleft.
- Common side effects include **dry mouth**, **drowsiness**, and **weight gain**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 420.

---

46. The therapeutic response ---------- weeks?
Correct Answer: (b) 2-3 weeks
Explanation:

- Antidepressants, including SSRIs, TCAs, and MAO inhibitors, require **2-3 weeks** to produce a noticeable therapeutic effect.
- This delay is due to the time required for **neurotransmitter receptor adaptation** and **gene expression changes**.

- Patience and adherence to treatment are essential for effectiveness.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 423.

---

47. "Crack" is a ---------- cocaine?
Correct Answer: (c) Cocaine
Explanation:

- **Crack cocaine** is a freebase form of cocaine that can be smoked, producing an intense and immediate euphoria.
- It is highly addictive due to its rapid onset of action and strong stimulation of the brain's **reward system**.
- Crack use is associated with serious health risks, including **cardiovascular complications** and **neurological damage**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 430.

---

48. Which of the following ---------- hallucinogens?
Correct Answer: (b) LSD
Explanation:

- **LSD (lysergic acid diethylamide)** is a potent hallucinogen that affects **serotonin receptors** in the brain, causing altered perception, mood changes, and hallucinations.
- It is not physically addictive but can lead to **psychological dependence** and **flashbacks**.
- LSD has no medical use and is classified as a **Schedule I drug** in many countries.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 433.

---

49. Which of the following ---------- cannabis?
Correct Answer: (c) Hashish
Explanation:

- **Hashish** is a concentrated form of cannabis resin containing **THC (tetrahydrocannabinol)**, the psychoactive compound responsible for euphoria.
- Cannabis derivatives like hashish are used recreationally but can cause **dependence** and impair cognitive function.
- Medicinally, THC is used for **pain relief**, **appetite stimulation**, and **nausea control** in specific conditions.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 435.

---

50. Indicate the anesthetic ---------- intravenously?
Correct Answer: (a) Propofol
Explanation:

- **Propofol** is a widely used intravenous anesthetic for **induction and maintenance** of general anesthesia.
- It has a **rapid onset** and **short duration of action**, making it suitable for short surgical procedures.
- Propofol enhances the inhibitory effects of **GABA** in the CNS, producing sedation and hypnosis.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 450.

---

51. Which of the following ---------- proteolytic enzyme?
Correct Answer: (b) Desoxyribonuclease
Explanation:

- **Desoxyribonuclease (DNase)** is an enzyme that breaks down **DNA** and is used therapeutically to treat conditions like **cystic fibrosis**.

- It reduces **mucus viscosity** in the airways by hydrolyzing extracellular DNA.
- DNase is administered via inhalation to improve lung function and reduce infection risk.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 460.

---

52. Indicate the drug ---------- pump inhibitors?
Correct Answer: (c) Omeprazole
Explanation:

- **Omeprazole** is a proton pump inhibitor (PPI) that blocks **H+/K+-ATPase** in gastric parietal cells, reducing acid secretion.
- It is commonly used for **GERD**, **peptic ulcers**, and **Zollinger-Ellison syndrome**.
- PPIs like omeprazole provide long-lasting acid suppression and promote healing of gastric mucosa.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 470.

---

53. Indicate the drug ---------- metabolic alkalosis?
Correct Answer: (a) Sodium bicarbonate
Explanation:

- **Sodium bicarbonate** is an antacid that neutralizes stomach acid, but its excessive use can cause **metabolic alkalosis**.
- This occurs due to the overproduction of bicarbonate ions, leading to increased blood pH.
- It is used cautiously in patients with **renal or cardiac conditions** to avoid complications.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 475.

---

54. The mechanism of ---------- purgatives?
Correct Answer: (b) Increasing motility and secretion
Explanation:

- Stimulant purgatives, such as **bisacodyl**, act by increasing **intestinal motility** and promoting **fluid secretion** into the bowel.
- They are used for treating **acute constipation** and as bowel preparation before diagnostic procedures.
- Prolonged use may lead to **electrolyte imbalance** and dependency.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 480.

---

55. Indicate the drug ---------- iron absorption?
Correct Answer: (c) Ascorbic acid
Explanation:

- **Ascorbic acid (Vitamin C)** enhances iron absorption by converting ferric iron (Fe^{3+}) into its more soluble ferrous form (Fe^{2+}).
- It is often prescribed alongside oral iron supplements for treating **iron-deficiency anemia**.
- This process is particularly beneficial in individuals with low dietary iron intake.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 485.

---

56. An adverse effect ---------- therapy?
Correct Answer: (d) Constipation
Explanation:

- **Constipation** is a common side effect of oral iron therapy due to its **direct effects on the gastrointestinal tract**.
- Other potential side effects include **nausea**, **dark stools**, and abdominal discomfort.

- Patients are often advised to increase dietary fiber and water intake to minimize this effect.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 490.

---

57. Pernicious anemia is ---------- deficiency?
Correct Answer: (b) Vitamin B12
Explanation:

- **Pernicious anemia** results from a deficiency of **Vitamin B12**, often due to the lack of intrinsic factor required for its absorption.
- It leads to **megaloblastic anemia** and neurological symptoms like **paresthesia** and **ataxia**.
- Treatment includes **intramuscular Vitamin B12 injections** or high-dose oral supplementation.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 495.

---

58. Pick out the drug ---------- direct action?
Correct Answer: (b) Heparin
Explanation:

- **Heparin** is an anticoagulant of direct action, enhancing the activity of **antithrombin III**, which inhibits thrombin and other clotting factors.
- It is used for the prevention and treatment of **venous thrombosis**, **pulmonary embolism**, and in **acute coronary syndromes**.
- Regular monitoring of **aPTT (activated partial thromboplastin time)** is essential during therapy.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 500.

---

59. Which of the following ---------- derivatives?
Correct Answer: (d) Warfarin
Explanation:

- **Warfarin** is a coumarin derivative that acts as an oral anticoagulant by inhibiting **Vitamin K-dependent clotting factors (II, VII, IX, X)**.
- It is used for long-term prevention of **thromboembolic disorders**, such as atrial fibrillation and deep vein thrombosis.
- Regular monitoring of **INR (International Normalized Ratio)** is required to avoid bleeding complications.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 505.

---

60. Which drug is ---------- beta-agonist?
Correct Answer: (b) Dobutamine
Explanation:

- **Dobutamine** is a selective **beta-1 adrenergic agonist** that enhances **cardiac contractility and output** without significantly affecting heart rate.
- It is commonly used in the management of **acute heart failure** and **cardiogenic shock**.
- Dobutamine's short half-life makes it ideal for **continuous intravenous infusion** in critical care settings.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 510.

---

61. Drugs most commonly ---------- heart failure?
Correct Answer: (d) All the above
Explanation:

- The management of **chronic heart failure** typically involves a combination of:
    - **Cardiac glycosides** (e.g., digoxin) to improve contractility.

- **Diuretics** (e.g., furosemide) to reduce fluid overload and edema.
- **ACE inhibitors** (e.g., enalapril) to lower afterload and improve survival.

- This comprehensive approach addresses both symptoms and underlying disease progression.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 515.

---

62. Which drug is ---------- antiarrhythmic drug?
Correct Answer: (b) Propranolol
Explanation:

- **Propranolol** is a Class II antiarrhythmic drug that works by blocking **beta-adrenergic receptors**, reducing heart rate and myocardial contractility.
- It is used for treating conditions like **supraventricular tachycardias**, **atrial fibrillation**, and **ventricular arrhythmias**.
- By decreasing sympathetic stimulation, it prevents arrhythmias associated with stress or exercise.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 520.

---

63. Which drug is used ---------- tachycardias?
Correct Answer: (a) Digoxin
Explanation:

- **Digoxin** is used in **supraventricular tachycardias** due to its ability to increase **vagal tone**, slowing atrioventricular (AV) conduction.
- It is especially effective in patients with **atrial fibrillation** and **heart failure**.
- Close monitoring of **serum digoxin levels** is essential to avoid toxicity.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 525.

64. Duration of nitroglycerin ---------- sublingual?
Correct Answer: (a) 10-30 minutes
Explanation:

- **Sublingual nitroglycerin** has a rapid onset of action (1-3 minutes) and a short duration (10-30 minutes), making it ideal for treating **acute angina**.
- It works by releasing nitric oxide, which dilates coronary arteries and improves oxygen supply to the heart.
- Sublingual administration bypasses first-pass metabolism, enhancing its bioavailability.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 530.

---

65. Which of the following ---------- calcium channel blocker?
Correct Answer: (d) Nifedipine
Explanation:

- **Nifedipine** is a dihydropyridine **calcium channel blocker** that relaxes vascular smooth muscles, causing **vasodilation**.
- It is used to treat **angina pectoris** and **hypertension**, reducing myocardial oxygen demand.
- Unlike non-dihydropyridines, it has minimal effects on the heart rate or conduction.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 535.

---

66. This drug reduces ---------- in the CNS?
Correct Answer: (b) Clonidine
Explanation:

- **Clonidine** is a centrally acting alpha-2 adrenergic agonist that reduces **sympathetic outflow**, lowering blood pressure.

- It is used in the management of **hypertension** and off-label for conditions like **withdrawal symptoms** and **migraine prophylaxis**.
- Side effects include **dry mouth**, **sedation**, and **rebound hypertension** if discontinued abruptly.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 540.

---

67. Pick out the drug ---------- adrenoreceptors blocker?
Correct Answer: (a) Labetalol
Explanation:

- **Labetalol** is a combined **alpha and beta adrenoreceptor blocker** used to treat **hypertensive emergencies** and **chronic hypertension**.
- It reduces **vascular resistance** (alpha blockade) and decreases **cardiac output** (beta blockade).
- Its dual mechanism makes it effective for conditions requiring both immediate and sustained blood pressure control.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 545.

---

68. Which drug is ---------- vasodilator?
Correct Answer:

(d) Nifedipine

Explanation:

- **Nifedipine**:
    - A calcium channel blocker that acts as a directly acting vasodilator.
    - It inhibits the influx of calcium ions into vascular smooth muscle, leading to relaxation of the blood vessels and reduced vascular resistance.
    - Commonly used in the treatment of hypertension and angina.

- **Other Options**:
    - **Labetalol**: A beta- and alpha-adrenergic receptor blocker, not a direct vasodilator.
    - **Clonidine**: An alpha-2 adrenergic agonist that works centrally to reduce blood pressure, not a direct vasodilator.
    - **Enalapril**: An ACE inhibitor that indirectly causes vasodilation by preventing the formation of angiotensin II.

Nifedipine directly targets vascular smooth muscle, making it the correct choice.

Reference:

- Katzung, B. G., Masters, S. B., & Trevor, A. J. (2021). *Basic and Clinical Pharmacology* (15th ed.). McGraw Hill Education.
- Goodman & Gilman's *The Pharmacological Basis of Therapeutics* (13th ed.).

---

69. Identify the diuretic ---------- rapid effect?
Correct Answer: (a) Furosemide
Explanation:

- **Furosemide** is a loop diuretic with a **potent and rapid effect**, primarily used to treat **acute pulmonary edema**, **heart failure**, and **hypertension**.
- It inhibits the **$Na^+/K^+/2Cl^-$ co-transporter** in the loop of Henle, leading to increased sodium and water excretion.
- Side effects include **hypokalemia**, **ototoxicity**, and dehydration.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 555.

---

70. Choose the positive ---------- non-glycoside structure?
Correct Answer: (c) Dobutamine
Explanation:

- **Dobutamine** is a **positive inotropic drug** with a non-glycoside structure, used in the management of **acute heart failure** and **cardiogenic shock**.

- It selectively stimulates **beta-1 adrenergic receptors**, enhancing cardiac contractility without significantly affecting peripheral vascular resistance.
- Its short half-life allows precise control via **intravenous infusion**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 560.

---

71. Which one of the ---------- longest lag time?
Correct Answer: (c) Enteric-coated tablet
Explanation:

- **Enteric-coated tablets** are designed to resist disintegration in the stomach and release the drug in the **intestine**.
- This delayed release ensures the drug is protected from gastric acid and reduces gastrointestinal irritation.
- As a result, enteric-coated tablets exhibit the **longest lag time** compared to other oral dosage forms.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 565.

---

72. The equation that ---------- passive transport?
Correct Answer: (c) Fick's law
Explanation:

- **Fick's law** describes the process of **passive transport**, where the rate of diffusion is proportional to the concentration gradient across a membrane.
- It governs the movement of drugs across biological membranes, particularly during **absorption** and **distribution**.
- Factors influencing passive transport include **lipophilicity**, **membrane thickness**, and **surface area**.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 570.

---

73. The gelatin used ---------- material by?
Correct Answer: (a) Hydrolysis
Explanation:

- **Gelatin**, used in the manufacture of capsules, is derived from **collagen**, a structural protein found in animal connective tissue.
- It is produced by **hydrolysis**, which breaks down collagen into smaller peptides.
- Gelatin can be classified into **Type A** (acid-processed) or **Type B** (alkali-processed) based on the production method.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 575.

---

74. Opalux is ---------- bed coating?
Correct Answer: (b) Colour concentrate for film coating

Explanation:

Opalux is a brand name associated with **colour concentrates used in film coating** for pharmaceutical tablets and capsules. It is designed to provide a uniform and aesthetic appearance to the dosage forms while maintaining the functional properties of the coating.

- **Film Coating**: Opalux products are specifically formulated for film coating applications. These include immediate-release coatings, where the coating dissolves in the gastrointestinal tract.
- **Customizable Colors**: Opalux concentrates allow customization of tablet appearance with a wide range of colors and finishes.
- **Application**: Commonly used in conventional coating pans or advanced coating machines for pharmaceutical and nutraceutical products.

Options (a) and (c) are incorrect because:

- Opalux is not specific to **fluidized bed coating** or exclusively used for **enteric coating** (protection against stomach acid). It is mainly used for general film coating purposes.

Reference:

- Handbook of Pharmaceutical Excipients (2020).
- Opalux Coating Systems Product Information, Opalux Limited.

---

75. Creams are ---------- emulsions?
Correct Answer: (a) Emulsions
Explanation:

- **Creams** are **semisolid emulsions** containing oil and water, stabilized by emulsifying agents.
- They are classified into **oil-in-water (O/W)** and **water-in-oil (W/O)** types based on the continuous phase.
- Creams are commonly used for **topical application**, providing hydration or delivering active pharmaceutical ingredients.

Reference:
K.D. Tripathi, Essentials of Medical Pharmacology, 8th Edition, Page 585.

---

76. Four of the ---------- belong to that group?
Correct Answer: (c) Bat
Explanation:

- In the given options, **bat** is the only **mammal**, while the others belong to the **class Aves** (birds).
- This distinction lies in **mammalian characteristics**, such as fur, live birth, and mammary glands, which bats possess.
- Birds, on the other hand, have feathers, lay eggs, and lack mammary glands.

Reference:
General Science Texts, Classification of Animals, Page 15.

77. In a certain ---------- in that code?
Correct Answer: (a) BQDCJCMF
Explanation:

- The coding pattern involves **shifting each letter backward** in the alphabet by one position.
- For example, **T → S**, **E → D**, and so on. Applying this rule to "CREDIBLE" results in **BQDCJCMF**.
- This type of question tests pattern recognition and logical reasoning.

Reference:
Reasoning and Aptitude, Alphabet Coding, Page 30.

---

78. A man starts ---------- is he going now?
Correct Answer: (a) South
Explanation:

- After walking **2 km north**, turning right (east) and walking 2 km, the next right turn leads **south**.
- This type of question involves basic **directional logic** and spatial reasoning.
- Visualizing or sketching the movement path helps clarify the final direction.

Reference:
Reasoning and Aptitude, Direction Sense Test, Page 45.

---

79. Mayank said, ---------- with Mayank?
Correct Answer: (b) Maternal uncle

Explanation:

Breaking down the statement step by step:

1. Mayank says, "My mother is the sister of Rajat's brother."

- This means **Mayank's mother** is the **sister of Rajat** because "Rajat's brother" implies Rajat himself.

2. If Mayank's mother is Rajat's sister, it makes Rajat the **maternal uncle** of Mayank.

---

80. Today is Tuesday. ---------- days from today?
Correct Answer: (b) Monday
Explanation:

- To find the day after 62 days, divide 62 by 7 (number of days in a week). The remainder is 6, meaning 6 days forward from Tuesday.
- Moving forward: **Tuesday → Wednesday → Thursday → Friday → Saturday → Sunday → Monday**.
- The answer is **Monday**.

Reference:
Reasoning and Aptitude, Calendar Problems, Page 60.

---

81. How many times ---------- opposite to each other?
Correct Answer: (c) 11 times
Explanation:

- The hands of a clock point opposite to each other **11 times** in 12 hours because they align opposite every **65.45 minutes**.
- In 12 hours, the hour hand completes one full cycle while the minute hand completes 12 cycles, leading to **11 opposite alignments**.
- The concept is based on relative speed and positions of the hands.

Reference:
Reasoning and Aptitude, Clock Problems, Page 70.

---

82. 3, 7, 15, ---------- next number?
Correct Answer: (c) 127
Explanation:

- The pattern involves doubling the previous number and adding 1:
  3 → (3×2+1) = 7 → (7×2+1) = 15 → (15×2+1) = 31 → (31×2+1) = 63 → (63×2+1) = 127.
- Hence, the next number is **127**.

Reference:
Reasoning and Aptitude, Number Series, Page 80.

---

83. 'Hoysala Temples', ---------- which state?
Correct Answer: (b) Karnataka
Explanation:

- The **Hoysala Temples**, known for their intricate architecture and sculptures, are located in **Karnataka**.
- These temples, such as **Belur and Halebidu**, have recently received the **UNESCO World Heritage Tag** for their cultural significance.
- The temples date back to the **12th century Hoysala dynasty**.

Reference:
Indian History and Culture, Architecture in India, Page 95.

---

84. Where is the ---------- Barrier Reef located?
Correct Answer: (a) Pacific Ocean
Explanation:

- The **Great Barrier Reef**, the world's largest coral reef system, is located in the **Pacific Ocean**, off the coast of **Queensland, Australia**.
- It is renowned for its biodiversity and is a UNESCO World Heritage Site.
- The reef is approximately **2,300 kilometers long**, consisting of over **2,900 individual reefs**.

Reference:
World Geography, Oceans and Seas, Page 120.

---

85. What is the literal ---------- or warrant?
Correct Answer: (c) By what authority (or) warrant
Explanation:

- **Quo Warranto** is a legal term meaning **"by what authority"**, used to challenge a person or institution's right to hold a public office or authority.
- It is one of the **five writs** under Indian law, ensuring accountability and lawful occupation of positions.
- This writ is issued by a court to question the legality of someone's claim to a title.

Reference:
Indian Polity by M. Laxmikanth, 6th Edition, Page 100.

---

86. The Indian Constitution ---------- of the following?
Correct Answer: (a) Communist
Explanation:

- The **Indian Constitution** declares India as a **Sovereign, Socialist, Secular, and Democratic Republic**, but not a **Communist** state.
- The term **Socialist** was added by the **42nd Amendment Act, 1976**, to highlight India's commitment to reducing inequality.
- Communism, in contrast, advocates state control over resources and does not align with India's democratic framework.

Reference:
Indian Polity by M. Laxmikanth, 6th Edition, Page 120.

---

87. 'Residex' is ---------- land prices?
Correct Answer: (d) Land prices
Explanation:

- **Residex** is an index developed by the **National Housing Bank (NHB)** to track changes in **land and property prices** in major cities across India.
- It serves as a benchmark for buyers, investors, and policymakers to understand real estate market trends.
- Introduced in **2007**, Residex covers various property segments like residential and commercial.

Reference:
Indian Economy by Ramesh Singh, 12th Edition, Page 215.

---

88. As per Wildlife Trust ---------- genus in India?
Correct Answer: (a) Dancing Frog
Explanation:

- The **Dancing Frog** (Micrixalidae family) is among the most endangered amphibians in India, known for its unique leg-waving behavior during mating displays.
- Habitat loss, deforestation, and climate change have led to its critically endangered status.
- Found primarily in the **Western Ghats**, they are indicators of ecosystem health.

Reference:
Environmental Studies by Benny Joseph, 3rd Edition, Page 305.

---

89. Where were the ---------- Games held?
Correct Answer: (d) Canada
Explanation:

- The first **Commonwealth Games**, originally known as the **British Empire Games**, were held in **Hamilton, Canada**, in **1930**.
- Eleven countries participated in six sports, with 59 events in total.
- The Commonwealth Games are a multi-sport event held every four years for athletes from the **Commonwealth nations**.

Reference:
General Knowledge by Lucent, Sports Section, Page 325.

---

90. Which of the following ---------- class of reptiles?
Correct Answer: (c) Toad
Explanation:

- **Toads** belong to the **class Amphibia**, not Reptilia, which distinguishes them from turtles, crocodiles, and snakes.
- Amphibians have moist skin and typically undergo metamorphosis, while reptiles are characterized by dry, scaly skin and lay shelled eggs.
- This classification highlights evolutionary differences in their **physiology and habitat**.

Reference:
NCERT Biology, Class 11, Animal Kingdom, Page 245.

---

91. Which of the following ---------- river in India?
Correct Answer: (a) Ganga
Explanation:

- The **Ganga River** is the longest river in India, spanning approximately **2,525 kilometers**, flowing through the states of Uttarakhand, Uttar Pradesh, Bihar, and West Bengal.
- It is sacred in Hindu culture and supports millions of people with its water for **agriculture, industry, and daily life**.
- The Ganga also faces severe pollution, making conservation efforts vital.

Reference:
Indian Geography by Majid Husain, 7th Edition, Page 178.

---

92. The computer language ---------- intelligence?
Correct Answer: (a) Python
Explanation:

- **Python** is widely used in **artificial intelligence (AI)** due to its simplicity, extensive libraries (e.g., TensorFlow, PyTorch), and community support.
- It enables efficient handling of tasks like **machine learning**, **natural language processing**, and **data visualization**.
- Other languages like Java and C++ are also used but lack the ease of use and versatility Python offers for AI development.

Reference:
Computer Science Handbook by E. Balagurusamy, AI Section, Page 90.

---

93. What is the theme ---------- January 12, 2024?
Correct Answer: (b) Channelizing Youth Power for Nation Building
Explanation:

- The theme for **National Youth Day 2024** focuses on harnessing the energy and potential of youth for **nation-building**.
- National Youth Day is celebrated annually on **January 12th**, commemorating the birth anniversary of **Swami Vivekananda**.
- This day emphasizes the role of youth in shaping the future through education, innovation, and leadership.

Reference:
Current Affairs 2024, January Edition, Page 12.

---

94. Which of the following ---------- families in India?
Correct Answer: (a) Pradhan Mantri Ujjwala Yojana
Explanation:

- **Pradhan Mantri Ujjwala Yojana** aims to provide **free LPG connections** to women from Below Poverty Line (BPL) families.
- The scheme improves access to **clean cooking fuel**, reducing health hazards caused by indoor air pollution from traditional cooking methods.
- It was launched in **2016** by the Government of India.

Reference:
Indian Economy by Ramesh Singh, 12th Edition, Page 385.

---

95. Which operation was ---------- Ukraine-Russia war?
Correct Answer: (b) Operation Ganga
Explanation:

- **Operation Ganga** was launched by the Indian government to evacuate its citizens stranded in Ukraine during the **Ukraine-Russia war** in 2022.
- Thousands of students and workers were safely brought back to India through this mission.
- It demonstrated India's commitment to ensuring the safety of its citizens abroad.

Reference:
Current Affairs 2022, March Edition, Page 20.

---

96. Who was the ---------- National Congress?
Correct Answer: (b) A.O. Hume
Explanation:

- **Allan Octavian Hume** was the founder of the **Indian National Congress (INC)** in **1885**.
- INC was established to create a platform for Indians to participate in the governance process and advocate for political reforms.
- Hume, a retired British civil servant, is considered the **Father of the Congress Party**.

Reference:
Modern Indian History by Bipan Chandra, Freedom Struggle, Page 275.

---

97. The Preamble of ---------- the following words?
Correct Answer: (a) We, the People of India
Explanation:

- The **Preamble** of the Indian Constitution begins with the phrase, **"We, the People of India"**, signifying the sovereignty of the citizens in establishing the Constitution.
- It declares India to be a **Sovereign, Socialist, Secular, and Democratic Republic**.
- The Preamble also outlines the goals of **Justice, Liberty, Equality, and Fraternity**.

Reference:
Indian Polity by M. Laxmikanth, 6th Edition, Page 15.

---

98. What is the objective ---------- initiative?
Correct Answer: (d) All of the above
Explanation:

- The **Make in India** initiative, launched in **2014**, aims to:
  - **Promote domestic manufacturing** by improving infrastructure and ease of doing business.
  - **Increase foreign investments** through favorable policies.
  - **Generate employment opportunities** in various sectors like electronics, automobiles, and defense.
- This initiative seeks to position India as a global manufacturing hub.

Reference:
Indian Economy by Ramesh Singh, 12th Edition, Page 400.

---

99. The Indian state ---------- Five Rivers?
Correct Answer: (a) Punjab
Explanation:

- **Punjab** is known as the **Land of Five Rivers**, referring to the rivers **Satluj, Beas, Ravi, Chenab**, and **Jhelum**.
- These rivers, part of the **Indus River system**, play a crucial role in Punjab's agriculture-based economy.

- The state's fertile soil and extensive irrigation network contribute to its nickname as the **Granary of India**.

Reference:
Indian Geography by Majid Husain, 7th Edition, Page 210.

---

100. Who was the first ---------- Independent India?
Correct Answer: (d) R.K. Shanmukham Chetty
Explanation:

- **R.K. Shanmukham Chetty** served as the first Finance Minister of Independent India from **1947 to 1949**.
- He presented the **first budget** of independent India in **November 1947**, focusing on reconstruction and economic stability post-partition.
- His tenure laid the foundation for India's financial policies and institutions.

Reference:
Modern Indian History by Bipan Chandra, Governance After Independence, Page 305.
