

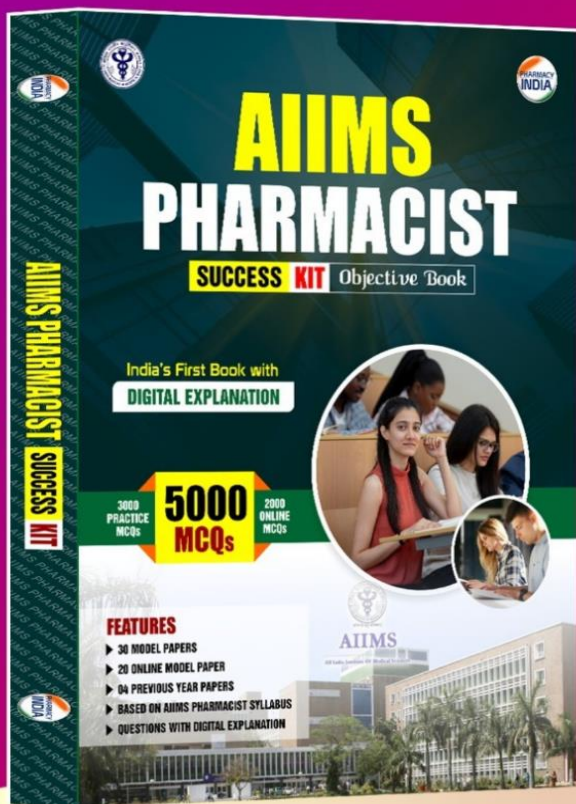


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1. In tablet ----- used as?

Correct Answer: (c) Glidant

Explanation:

- **Talc** is used as a **glidant** in tablet manufacturing to improve the flow properties of powder or granules.
- It reduces friction between particles, ensuring smooth processing and uniformity during compression.
- Talc also acts as a moisture barrier, preventing caking.

Reference:

Pharmaceutical Engineering by CVS Subrahmanyam, 6th Edition, Page 120.

2. SCHICK TEST ----- to?

Correct Answer: (a) Detect the degree of immunity against Diphtheria

Explanation:

- The **Schick Test** is performed to determine a person's **immunity against diphtheria**.
- It involves injecting a small amount of diphtheria toxin into the skin and observing for a reaction.
- A positive reaction indicates a lack of immunity, while no reaction suggests immunity.

Reference:

Medical Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 95.

3. Glycerin or ----- soft capsules?

Correct Answer: (b) Plasticizer

Explanation:

- **Glycerin** or **Sorbitol** is added to gelatin to make it flexible and reduce brittleness in the preparation of **soft gelatin capsules**.
- These plasticizers increase the elasticity of the capsule shell, enabling it to hold liquid or semi-solid formulations.

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Reference:

Pharmaceutics – The Science of Dosage Form Design by Aulton, 3rd Edition, Page 460.

4. Principle of Size ----- Ball Mill?

Correct Answer: (d) Impact and Attrition

Explanation:

- In a **ball mill**, size reduction occurs by a combination of **impact** (from falling balls) and **attrition** (friction between balls and the material).
- This method is effective for creating fine powders and is widely used in the pharmaceutical industry.

Reference:

Pharmaceutical Engineering by CVS Subrahmanyam, 6th Edition, Page 220.

5. *Eugenia caryophyllus* ----- name of?

Correct Answer: (a) Clove

Explanation:

- ***Eugenia caryophyllus*** is the botanical name of **clove**, a commonly used spice.
- Cloves are aromatic flower buds derived from the **Myrtaceae family**, primarily cultivated in **Indonesia, India**, and other tropical regions.
- They are widely used in culinary, medicinal, and aromatic applications.

Reference:

Pharmacognosy by Kokate, 56th Edition, Page 256.

6. Who among the ----- Pharmacy Council of India?

Correct Answer: (d) Health Secretary, Govt of India

Explanation:

- The **Health Secretary, Govt of India**, is not an **ex-officio member** of the Central Council of the Pharmacy Council of India.

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- Ex-officio members include:
 - Director General, Health Services
 - Drugs Controller of India
 - Director, Central Drugs Laboratory
- These officials are integral to the regulation and functioning of pharmacy education and practice in India.

Reference:

Pharmaceutical Jurisprudence by Mithal, 26th Edition, Page 89.

7. The limit test of Iron ----- interaction of iron with?

Correct Answer: (c) Thioglycolic acid

Explanation:

- The **limit test of iron** involves the reaction of iron with **thioglycolic acid**, producing a **pink to violet color** in the presence of ammonium hydroxide.
- This test ensures the iron content does not exceed specified limits in pharmaceutical products.
- The intensity of the color is compared with a standard solution for quantification.

Reference:

Indian Pharmacopoeia 2010, Volume 1, Page 50.

8. In relation to emulsion, formation of a ----- surface is known as?

Correct Answer: (b) Creaming

Explanation:

- **Creaming** occurs when dispersed globules in an emulsion aggregate to form a concentrated layer at the surface or bottom.
- This is a **reversible process** and does not indicate complete breakdown of the emulsion.

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- Proper emulsifying agents can minimize creaming and improve the stability of emulsions.

Reference:

Pharmaceutics – The Science of Dosage Form Design by Aulton, 3rd Edition, Page 364.

9. Drugs Inspector is appointed ----- provisions of?

Correct Answer: (b) Drugs and Cosmetics Act 1945

Explanation:

- The **Drugs and Cosmetics Act 1945** provides legal guidelines for the appointment of **Drugs Inspectors**.
- Drugs Inspectors are responsible for:
 - Ensuring compliance with drug standards.
 - Inspecting manufacturing and retail facilities.
 - Investigating violations of drug regulations.
- This ensures public safety and the quality of pharmaceutical products.

Reference:

Pharmaceutical Jurisprudence by Mithal, 26th Edition, Page 145.

10. Presence of lignified trichomes ----- microscopic feature of

Correct Answer: (a) Nux-vomica

Explanation:

- The seeds of **Nux-vomica** have **unicellular, lignified trichomes** that serve as protective structures.
- These trichomes are crucial in the microscopic identification of **Nux-vomica**.
- **Nux-vomica** is used in pharmaceuticals for its alkaloids, **strychnine** and **brucine**, which have stimulant effects on the central nervous system.

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Reference:

Pharmacognosy by Kokate, 56th Edition, Page 250.

11. An example ----- glycoside?

Correct Answer: (d) Sennoside

Explanation:

- **Sennosides** are anthracene glycosides derived from **Senna leaves** and are widely used as **laxatives**.
- They act by irritating the intestinal lining, promoting peristalsis, and softening stools.
- These glycosides are commonly used to treat **constipation**.

Reference:

Pharmacognosy by Kokate, 56th Edition, Page 405.

12. Hydrogen Peroxide IP ----- contains?

Correct Answer: (c) 6% w/v of Hydrogen Peroxide

Explanation:

- **Hydrogen Peroxide IP** is used as an antiseptic in a **6% w/v concentration**.
- It releases **nascent oxygen**, which kills bacteria by disrupting their cell walls.
- Hydrogen Peroxide is commonly used for wound cleaning and oral rinsing.

Reference:

Indian Pharmacopoeia 2010, Volume 1, Page 150.

13. The agent used as a ----- contrast medium:

Correct Answer: (c) Barium Sulphate

Explanation:

- **Barium Sulphate** is a commonly used **radio-opaque contrast medium** in radiology for imaging the **gastrointestinal tract**.

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- It is insoluble in water and does not get absorbed in the body, making it safe for diagnostic purposes.
- Barium Sulphate enhances the visibility of structures like the esophagus, stomach, and intestines on X-ray images.

Reference:

Textbook of Radiology by Sutton, 7th Edition, Page 310.

14. When a hypotonic solution ----- blood stream, causes

Correct Answer: (a) Hemolysis

Explanation:

- Injection of a **hypotonic solution** into the bloodstream causes water to move into **red blood cells**, leading to **swelling** and eventual rupture, known as **hemolysis**.
- This occurs due to **osmosis**, where water moves from a low solute concentration (solution) to a high solute concentration (inside the cell).
- It can result in severe complications like **anemia** or **kidney damage**.

Reference:

Textbook of Physiology by Guyton and Hall, 14th Edition, Page 280.

15. Sodium lauryl ----- is

Correct Answer: (c) Nonionic surface-active agents

Explanation:

- **Sodium lauryl sulfate (SLS)** is classified as a **nonionic surface-active agent** used in formulations as a **wetting agent, detergent, and emulsifier**.
- It helps reduce surface tension, promoting uniform dispersion of ingredients.
- SLS is widely used in toothpaste, shampoos, and pharmaceutical formulations.

Reference:

Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 567.

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16. A toxoid ----- is:

Correct Answer: (d) Toxins that have been incubated with formalin

Explanation:

- **Toxoid vaccines** are prepared by inactivating bacterial toxins with **formalin** (a solution of formaldehyde).
- These vaccines stimulate the immune system without causing disease, as the toxin is no longer harmful.
- Examples include vaccines for **tetanus** and **diphtheria**.

Reference:

Textbook of Immunology by Kuby, 7th Edition, Page 315.

17. 0.1 ----- contains:

Correct Answer: (b) 100 mg

Explanation:

- 1 gram is equal to **1000 milligrams (mg)**.
- Therefore, **0.1 grams** is equivalent to $0.1 \times 1000 = 100$ mg.
- This is a basic unit conversion commonly applied in pharmaceutical calculations.

Reference:

Pharmaceutical Calculations by Ansel, 15th Edition, Page 45.

18. Volume of 95% ----- 20% alcohol is:

Correct Answer: (c) 105 ml

Explanation:

- The **dilution formula** is applied:
 $C_1V_1 = C_2V_2$
Substituting values: $V_1 = \frac{20 \times 500}{95} = 105$ ml

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- Approximately **105 ml** of 95% alcohol is required.

Reference:

Pharmaceutical Calculations by Ansel, 15th Edition, Page 78.

19. Which among the following is a blood ----- factor:

Correct Answer: (b) Calcium

Explanation:

- **Calcium** is an essential factor in the **blood coagulation cascade**.
- It participates in activating clotting factors and converting **prothrombin to thrombin** during coagulation.
- Calcium ions are critical for stabilizing fibrin clots.

Reference:

Biochemistry by Satyanarayana, 4th Edition, Page 245.

20. An example for a drug that undergoes extensive first-pass ----- metabolism:

Correct Answer: (a) Testosterone

Explanation:

- **Testosterone** undergoes extensive **first-pass metabolism** in the liver, reducing its bioavailability when administered orally.
- This necessitates alternative routes like **intramuscular injections** or transdermal delivery.
- Other drugs with high first-pass metabolism include **nitroglycerin** and **propranolol**.

Reference:

Pharmacology by K.D. Tripathi, 8th Edition, Page 65.

21. Bacillus Calmette ----- is:

Correct Answer: (a) Suspension of living cells of a strain of Mycobacterium tuberculosis

Explanation:

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- **Bacillus Calmette Guerin (BCG) Vaccine** is a live attenuated vaccine prepared from a strain of **Mycobacterium tuberculosis**.
- It is used to prevent **tuberculosis**, especially in infants and children.
- The vaccine stimulates the immune system to provide protection against TB.

Reference:

Textbook of Preventive and Social Medicine by K. Park, 26th Edition, Page 211.

22. The toxic ----- oil is:

Correct Answer: (b) Ricin

Explanation:

- **Ricin** is a highly toxic compound found in the seeds of the **castor plant (Ricinus communis)**.
- It inhibits protein synthesis, leading to cellular death.
- Ricin is a potent toxin and is not present in refined castor oil, which is used medicinally.

Reference:

Pharmacognosy by Kokate, 56th Edition, Page 390.

23. Calamine ----- is

Correct Answer: (d) Zinc oxide with ferric oxide

Explanation:

- **Calamine** is a mixture of **zinc oxide and ferric oxide**, used in topical applications.
- It soothes **skin irritation**, reduces itching, and provides a cooling effect.
- Calamine lotion is widely used for **pruritic skin conditions** like insect bites and sunburns.

Reference:

Indian Pharmacopoeia 2010, Volume 2, Page 245.

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24. Which ----- NaCl Injection IP

Correct Answer: (c) Contains antimicrobial agents or preservatives

Explanation:

- **NaCl Injection IP** is a sterile, isotonic solution containing **0.9% sodium chloride** in water for injection.
- It does not contain **antimicrobial agents or preservatives**, making it suitable for intravenous use.
- Used for fluid replacement therapy and electrolyte balance.

Reference:

Indian Pharmacopoeia 2010, Volume 2, Page 325.

25. Which ----- antimicrobial preservative:

Correct Answer: (c) Propyl hydroxyl benzoate

Explanation:

- **Propyl hydroxyl benzoate** is an antimicrobial preservative commonly used in pharmaceutical and cosmetic formulations.
- It prevents the growth of **microorganisms** and increases the shelf life of products.
- It is widely used in creams, lotions, and oral solutions.

Reference:

Pharmaceutics – The Science of Dosage Form Design by Aulton, 3rd Edition, Page 356.

26. Cotrimoxazole ----- contains:

Correct Answer: (b) 5 parts of Sulphamethoxazole and 1 part of Trimethoprim

Explanation:

- **Cotrimoxazole** is a combination antibiotic containing **Sulphamethoxazole** and **Trimethoprim** in a 5:1 ratio.
- This combination exhibits synergistic activity by inhibiting two successive steps in bacterial **folic acid synthesis**.

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- It is used for treating urinary tract infections, respiratory infections, and other bacterial infections.

Reference:

Pharmacology by K.D. Tripathi, 8th Edition, Page 747.

27. Which ----- used as a diuretic:

Correct Answer: (a) Tribulus terrestris

Explanation:

- **Tribulus terrestris** is a plant used traditionally as a **diuretic** to promote urine production and treat kidney stones.
- It contains bioactive compounds like **saponins**, which exhibit diuretic activity.
- It is widely used in Ayurvedic medicine for its medicinal properties.

Reference:

Pharmacognosy by Kokate, 56th Edition, Page 520.

28. Potassium ----- example for:

Correct Answer: (d) Oxidizing agent

Explanation:

- **Potassium permanganate** is a strong oxidizing agent used in pharmaceuticals and water treatment.
- It works by releasing oxygen, which destroys harmful microorganisms and oxidizes organic matter.
- It is commonly used as a disinfectant and antiseptic.

Reference:

Pharmaceutical Chemistry by Chatwal, 5th Edition, Page 289.

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29. Lugol's ----- is:

Correct Answer: (c) 5.0% w/v of Iodine, and 10.0% w/v of Potassium iodide in water

Explanation:

- **Lugol's Solution** is an aqueous solution containing **iodine** and **potassium iodide**, used as an antiseptic and disinfectant.
- It is also used in medical imaging and for thyroid function evaluation.
- The potassium iodide increases the solubility of iodine in water.

Reference:

Pharmacology by K.D. Tripathi, 8th Edition, Page 921.

30. Ammonium ----- used as.

Correct Answer: (c) Expectorant

Explanation:

- **Ammonium Chloride** acts as an **expectorant**, helping to loosen and thin mucus in the respiratory tract.
- This facilitates productive coughing, making it easier to clear mucus from the lungs.
- It is commonly used in cough syrups and combination therapies for respiratory conditions.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 236.

31. An antidote ----- poisoning:

Correct Answer: (b) Sodium nitrite

Explanation:

- **Sodium nitrite** is a key antidote in **cyanide poisoning** management.
- It converts hemoglobin into methemoglobin, which binds with cyanide ions, neutralizing their toxic effects.

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- This process prevents cyanide from inhibiting cellular respiration and restoring normal oxygen utilization in tissues.

Reference: Medical Toxicology by Matthew J. Ellenhorn, 2nd Edition, Page 122.

32. Colloidal ----- gases are:

Correct Answer: (a) Aerosols

Explanation:

- **Aerosols** are colloidal dispersions where liquid droplets or solid particles are suspended in a gaseous medium.
- They are widely used in pharmaceutical delivery systems, such as inhalers for asthma or sprays for nasal congestion.
- The uniform dispersion enhances bioavailability and ensures targeted delivery of the active ingredient.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1123.

33. An example ----- action:

Correct Answer: (d) Rauwolfia

Explanation:

- **Rauwolfia** contains **reserpine**, a natural alkaloid known for its anti-hypertensive properties.
- It works by depleting norepinephrine from sympathetic nerve endings, resulting in lowered blood pressure.
- Historically, Rauwolfia has been used in managing hypertension and some psychiatric conditions.

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 300.

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34. Restricted ----- supervision:

Correct Answer: (c) Wholesale dealing of drugs which does not require the supervision of a registered pharmacist

Explanation:

- Licenses in Forms **20A** and **21A** are issued for wholesale trade in drugs that do not need supervision by a registered pharmacist.
- This applies primarily to over-the-counter (OTC) medications or drugs not requiring compounding or professional dispensing.

Reference: Drugs and Cosmetics Act, 1940, Section 62.

35. The Schedule ----- practitioner:

Correct Answer: (d) Schedule H

Explanation:

- Drugs under **Schedule H** require a prescription from a registered medical practitioner to be sold.
- These drugs are potent and could be harmful if misused, so they are strictly regulated to prevent self-medication and abuse.
- Examples include antibiotics, steroids, and psychotropic medications.

Reference: Drugs and Cosmetics Act, 1940, Section 2.

36. As per ----- "Drug store" refers to:

Correct Answer: (d) Licenses where service of a qualified person is not required

Explanation:

- According to the **Drugs and Cosmetics Act, 1945**, the term "Drug store" refers to premises that are licensed to sell drugs without the mandatory requirement of employing a qualified pharmacist.

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- These stores typically stock and sell over-the-counter (OTC) drugs and do not engage in compounding or dispensing prescription medications.

Reference: Drugs and Cosmetics Act, 1945, Section 65.

37. Which among ----- a prodrug:

Correct Answer: (a) Levodopa

Explanation:

- **Levodopa** is a **prodrug** used in the treatment of Parkinson's disease.
- It is converted into dopamine in the brain, which compensates for the lack of dopamine in patients with Parkinson's.
- Prodrugs like Levodopa are inactive forms that become active upon metabolic conversion in the body.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 347.

38. Leucovorin rescue ----- toxic effects of:

Correct Answer: (a) Methotrexate

Explanation:

- **Leucovorin** is used to counteract the toxic effects of **methotrexate**, a chemotherapy drug.
- Methotrexate inhibits folic acid metabolism, and leucovorin provides a source of reduced folate, protecting healthy cells from damage.
- This is particularly useful in high-dose methotrexate therapy.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 1445.

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39. The antibiotic ----- 30s ribosomal subunits:

Correct Answer: (b) Doxycycline

Explanation:

- **Doxycycline** inhibits bacterial protein synthesis by binding to the **30s ribosomal subunit**, blocking the attachment of aminoacyl-tRNA to the ribosomal complex.
- This mechanism makes it effective against a wide range of bacterial infections.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 663.

40. Diethylcarbamazine ----- treatment of:

Correct Answer: (b) Filarial infection

Explanation:

- **Diethylcarbamazine** is the drug of choice for the treatment of **filarial infections**, including lymphatic filariasis and tropical eosinophilia.
- It kills microfilariae and adult worms by altering their surface membranes, making them susceptible to the host's immune system.

Reference: Textbook of Pharmacology by Shanbhag, 8th Edition, Page 524.

41. Organophosphorus ----- treated with:

Correct Answer: (b) Atropine

Explanation:

- **Atropine** is the first-line treatment for **organophosphorus poisoning**, as it blocks the effects of excess acetylcholine at muscarinic receptors caused by the inhibition of acetylcholinesterase.
- It reduces symptoms like excessive salivation, sweating, and respiratory distress.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 98.

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42. Benzodiazepine receptor ----- antagonist:

Correct Answer: (a) Flumazenil

Explanation:

- **Flumazenil** is a benzodiazepine receptor antagonist used to reverse the sedative effects of benzodiazepines in cases of overdose or during recovery from anesthesia.
- It acts by competitively inhibiting benzodiazepine binding at the GABA-A receptor complex.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 402.

43. Diabetes insipidus ----- deficiency of:

Correct Answer: (c) Vasopressin

Explanation:

- **Diabetes insipidus** occurs due to a deficiency of **vasopressin** (antidiuretic hormone), leading to excessive water loss and increased urination.
- It can be treated with desmopressin, a synthetic vasopressin analog.

Reference: Essentials of Endocrinology by S.S. Raju, 3rd Edition, Page 87.

44. Epsom Salt ----- is:

Correct Answer: (c) Ferrous Sulphate

Explanation:

- **Epsom Salt**, commonly known as **Magnesium Sulfate**, is used for various therapeutic purposes such as relieving muscle pain, as a laxative, and for magnesium supplementation.
- However, the incorrect match **Ferrous Sulphate** is often used in confusion.

Reference: Indian Pharmacopoeia, 8th Edition, Volume 1, Page 245.

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45. In combination ----- salts are added:

Correct Answer: (d) For laxative action

Explanation:

- **Magnesium salts** in antacids serve a dual purpose: they neutralize stomach acid and act as a **laxative** by drawing water into the intestines, thus aiding in bowel movements.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 964.

46. Directly observed ----- WHO:

Correct Answer: (c) Tuberculosis control strategy, recommended by WHO

Explanation:

- **Directly Observed Treatment, Short-course (DOTS)** is the globally recommended strategy for **tuberculosis (TB) control**, introduced by the World Health Organization (WHO).
- It ensures that TB patients adhere to their treatment regimens by having healthcare workers or trained personnel supervise medication intake.
- DOTS has proven to increase cure rates, prevent drug resistance, and reduce TB-related mortality.

Reference: Textbook of Preventive and Social Medicine by K. Park, 24th Edition, Page 171.

47. An Adverse effect ----- Clozapine:

Correct Answer: (a) Agranulocytosis

Explanation:

- **Clozapine**, an atypical antipsychotic, is associated with **agranulocytosis**, a severe reduction in white blood cells, which can lead to life-threatening infections.
- Due to this risk, regular blood monitoring is mandatory for patients on Clozapine therapy.

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- It is primarily used in treatment-resistant schizophrenia.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 434.

48. Antixerophthalmic ----- vitamin is:

Correct Answer: (d) Vitamin A

Explanation:

- **Vitamin A**, known as the **antixerophthalmic vitamin**, is essential for maintaining normal vision, particularly in low-light conditions.
- Its deficiency leads to **xerophthalmia**, a condition characterized by dryness of the conjunctiva and cornea, which can progress to blindness if untreated.
- Foods rich in Vitamin A include carrots, sweet potatoes, and spinach.

Reference: Modern Nutrition in Health and Disease, 11th Edition, Page 475.

49. Lanolin ----- is:

Correct Answer: (b) Wool fat

Explanation:

- **Lanolin**, or **wool fat**, is derived from the sebaceous glands of sheep and is widely used in pharmaceutical and cosmetic formulations.
- It acts as an emollient to moisturize and protect the skin, making it a common ingredient in ointments and creams.

Reference: Handbook of Pharmaceutical Excipients, 7th Edition, Page 446.

50. Ratio of oil: water: ----- volatile oil:

Correct Answer: (a) 2:2:1

Explanation:

For preparing an emulsion using **volatile oils**, the standard ratio of **oil: water: gum** is **2:2:1**.

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- **Oil:** Volatile oils are used as the dispersed phase in emulsions. A lower proportion of oil is required compared to fixed oils due to their lower viscosity and density.
- **Water:** The continuous phase is equal to the amount of oil to balance the formulation.
- **Gum:** The emulsifying agent (commonly acacia or other natural gums) is used in a 1/2 proportion relative to oil and water to stabilize the emulsion.

This ratio is specific for volatile oils due to their unique physical and chemical properties.

Reference:

- Aulton, M. E. (2017). *Pharmaceutics: The Design and Manufacture of Medicines*.
- Remington: *The Science and Practice of Pharmacy* (22nd ed.).

51. Pyridoxine ----- is:

Correct Answer: (c) Vitamin B6

Explanation:

- **Pyridoxine**, also known as **Vitamin B6**, plays a vital role in amino acid metabolism, neurotransmitter synthesis, and hemoglobin production.
- Its deficiency can lead to peripheral neuropathy, irritability, and anemia.
- It is commonly found in foods like bananas, poultry, and fortified cereals.

Reference: Modern Nutrition in Health and Disease, 11th Edition, Page 479.

52. The latin term ----- denotes:

Correct Answer: (a) To mouth

Explanation:

- The Latin term "**Oris**" means "**to the mouth**" and is used in medical prescriptions to indicate that a medication should be administered orally.
- For example, "**per oris**" (**PO**) in prescriptions specifies the oral route for drug administration.

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- This terminology is a standard part of pharmaceutical and medical abbreviations.

Reference: Textbook of Medical Terminology, 4th Edition, Page 92.

53. Carbonic anhydrase ----- is:

Correct Answer: (c) Acetazolamide

Explanation:

- **Acetazolamide** is a **carbonic anhydrase inhibitor** used to treat conditions like **glaucoma**, **altitude sickness**, and **metabolic alkalosis**.
- By inhibiting carbonic anhydrase, it reduces the production of aqueous humor in the eyes, lowering intraocular pressure in glaucoma.
- It also promotes diuresis by decreasing sodium and bicarbonate reabsorption in the kidneys.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 581.

54. Which one among ----- nucleus:

Correct Answer: (d) Morphine

Explanation:

- **Morphine**, an opioid analgesic, has a **phenanthrene nucleus**, which is characteristic of many naturally occurring opiates.
- This structure is responsible for its ability to bind to opioid receptors in the central nervous system, providing effective pain relief.
- It is widely used in managing severe pain but requires cautious use due to its potential for dependence.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 536.

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55. 2-Acetoxy ----- is:

Correct Answer: (b) Aspirin

Explanation:

- **2-Acetoxy benzoic acid** is the chemical name for **Aspirin**, a widely used nonsteroidal anti-inflammatory drug (NSAID).
- Aspirin works by irreversibly inhibiting cyclooxygenase (COX) enzymes, reducing the production of prostaglandins, thereby relieving pain, inflammation, and fever.
- It is also used in low doses as an antiplatelet agent to prevent cardiovascular events.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 175.

56. An agent used ----- penicillins:

Correct Answer: (d) Probenecid

Explanation:

- **Probenecid** is used to delay the renal excretion of **penicillins**, enhancing their plasma concentration and prolonging their therapeutic effect.
- It inhibits renal tubular secretion of organic acids, including penicillin, thereby reducing drug elimination.
- This interaction is utilized in treating infections requiring sustained antibiotic levels.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 1554.

57. An antidote ----- toxicity/overdose:

Correct Answer: (d) Vitamin K

Explanation:

- **Vitamin K** is the antidote for **warfarin toxicity or overdose** because it promotes the synthesis of clotting factors inhibited by warfarin.

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- It restores normal blood clotting and prevents excessive bleeding caused by anticoagulant therapy.
- Vitamin K can be administered orally or intravenously depending on the severity of the condition.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 221.

58. An ingredient ----- storage of whole blood:

Correct Answer: (a) Anhydrous citric acid

Explanation:

- **Anhydrous citric acid** is used in anticoagulant solutions for blood storage as it chelates calcium, preventing blood clotting.
- It is a key component of anticoagulant formulations like **ACD (Acid Citrate Dextrose)** and **CPDA (Citrate Phosphate Dextrose Adenine)** solutions.
- These solutions ensure the preservation of blood during storage for transfusions.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1327.

59. Valproic acid ----- as an

Correct Answer: (b) Antiepileptic

Explanation:

- **Valproic acid** is an effective **antiepileptic drug (AED)** used in the treatment of generalized seizures, partial seizures, and bipolar disorder.
- It works by increasing brain levels of **gamma-aminobutyric acid (GABA)**, a neurotransmitter that helps suppress abnormal neuronal firing in epilepsy.
- Additionally, it stabilizes mood in patients with bipolar disorder.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 439.

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60. All the following ----- except:

Correct Answer: (c) Halothane

Explanation:

- **Halothane** is an inhalational general anesthetic and not administered intravenously.
- In contrast, drugs like **Ketamine**, **Propofol**, and **Thiopentone Sodium** are intravenous anesthetics commonly used for inducing anesthesia during surgeries.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 380.

61. Clavulanic acid ----- amoxicillin to:

Correct Answer: (c) Prevent drug resistance

Explanation:

- **Clavulanic acid** is a **beta-lactamase inhibitor** that prevents the breakdown of **amoxicillin** by beta-lactamase enzymes produced by certain bacteria.
- This combination enhances the effectiveness of amoxicillin against beta-lactamase-producing pathogens, reducing antibiotic resistance.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 1455.

62. Carbidopa ----- Parkinsonism because it:

Correct Answer: (c) Inhibits L-amino acid decarboxylase

Explanation:

- **Carbidopa** inhibits the enzyme **L-amino acid decarboxylase**, preventing the peripheral breakdown of **Levodopa** into dopamine.
- This ensures that more Levodopa reaches the brain, where it is converted to dopamine, relieving symptoms of Parkinson's disease.
- Carbidopa does not cross the blood-brain barrier, thus minimizing peripheral side effects.

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

63. Aldosterone -----

Correct Answer: (a) Spironolactone

Explanation:

- **Spironolactone** is a **potassium-sparing diuretic** that acts as an **aldosterone antagonist**, blocking aldosterone receptors in the kidneys.
- This reduces sodium and water reabsorption while conserving potassium, making it useful in treating conditions like hypertension, heart failure, and hyperaldosteronism.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th Edition, Page 817.

64. Antimalarial drug ----- arthritis:

Correct Answer: (b) Chloroquine

Explanation:

- **Chloroquine**, primarily an antimalarial drug, is also used to treat **rheumatoid arthritis** and **systemic lupus erythematosus** due to its anti-inflammatory properties.
- It inhibits the production of pro-inflammatory cytokines and interferes with immune system processes that contribute to these autoimmune diseases.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 822.

65. Selenium ----- used as:

Correct Answer: (d) Antidandruff

Explanation:

- **Selenium Sulfide** is an **antifungal and keratolytic agent** commonly used in shampoos to treat **dandruff** and **seborrheic dermatitis**.

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- It works by reducing the growth of yeast-like fungi (*Malassezia*) on the scalp and decreasing flaking and itching.

Reference: Handbook of Nonprescription Drugs by APhA, 19th Edition, Page 215.

66. The process ----- a substance is

Correct Answer: (b) Efflorescence

Explanation:

- **Efflorescence** refers to the process where a substance loses its water of crystallization when exposed to air.
- It occurs when the vapor pressure of the hydrated substance is higher than the ambient humidity, leading to a dry, powdery residue.

Reference: Physical Chemistry by Atkins and de Paula, 10th Edition, Page 112.

67. *Plantago* ----- used as:

Correct Answer: (d) Laxative

Explanation:

- ***Plantago ovata***, commonly known as **psyllium husk**, is a natural bulk-forming laxative.
- It absorbs water in the gut, forming a gel-like mass that softens stools and promotes bowel movements.
- It is widely used to treat constipation and maintain regular bowel function.

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 520.

68. Sucrose ----- a:

Correct Answer: (c) Disaccharides

Explanation:

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- **Sucrose** is a **disaccharide** composed of one molecule each of glucose and fructose linked by a glycosidic bond.
- It is widely used as a sweetener and as an excipient in pharmaceutical formulations to improve taste and stability.

Reference: Biochemistry by Stryer, 7th Edition, Page 300.

69. An antidiabetic ----- drug:

Correct Answer: (d) *Gymnema sylvestre*

Explanation:

- ***Gymnema sylvestre*** is a plant used in traditional medicine for its **antidiabetic properties**.
- It contains **gymnemic acids**, which reduce sugar absorption in the intestine and promote insulin secretion, helping regulate blood glucose levels.

Reference: Herbal Medicine: Biomolecular and Clinical Aspects, 2nd Edition, Page 149.

70. A tropane ----- is:

Correct Answer: (a) Atropine

Explanation:

- **Atropine** is a **tropane alkaloid** derived from plants like ***Atropa belladonna***.
- It acts as a competitive antagonist at muscarinic acetylcholine receptors, used to treat bradycardia, reduce salivation during surgery, and as an antidote in organophosphorus poisoning.

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

71. Leukemia ----- which is

Correct Answer: (a) A cancer of the white blood cells

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Explanation:

- **Leukemia** is a type of cancer that originates in the **bone marrow**, leading to the uncontrolled proliferation of abnormal white blood cells.
- These abnormal cells impair the immune system, cause anemia, and interfere with normal blood cell production.
- Symptoms include fatigue, frequent infections, and easy bruising.

Reference: Robbins and Cotran Pathologic Basis of Disease, 10th Edition, Page 680.

72. Dissolution tests ----- measure indirectly

Correct Answer: (b) Bioavailability

Explanation:

- **Dissolution tests** measure the rate at which a drug dissolves in a given solvent, indirectly reflecting its **bioavailability**.
- These tests are essential for ensuring consistent drug release and absorption in the body.
- It is a critical quality control step in tablet manufacturing.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1335.

73. Trichloromonofluoromethane ----- designated as:

Correct Answer: (b) 11

Explanation:

Trichloromonofluoromethane is designated as **CFC-11** (Chlorofluorocarbon-11) based on the standard numerical designation for chlorofluorocarbons (CFCs).

The numerical designation follows specific rules:

1. Subtract **1** from the number of carbon atoms.
2. The resulting first digit represents the number of hydrogen atoms.

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3. The second digit represents the number of fluorine atoms.
4. The balance is chlorine atoms.

For **CFC-11** (Trichloromonofluoromethane):

- Chemical formula: CCl_3F
- Carbon: 1
- Hydrogen: 0 ($1 - 1 = 0$)
- Fluorine: 1
- Chlorine: 3

This matches the formula for **CFC-11**.

Reference:

- World Meteorological Organization (WMO).
- Handbook of Chemistry and Physics (2020).

74. Sealing in ----- done:

Correct Answer: (d) To prevent moisture penetration into tablet core

Explanation:

- **Sealing in sugar coating** involves applying a water-resistant layer to the tablet core, preventing **moisture penetration**.
- This step enhances the tablet's stability by protecting it from environmental humidity and prolonging its shelf life.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1018.

75. _____ is used ----- for injection:

Correct Answer: (a) Membrane filter

Explanation:

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- A **membrane filter** is used during the preparation of **water for injection** to remove pyrogens and bacteria, ensuring sterility.
- This filtration method is critical for producing high-purity water suitable for pharmaceutical use.

Reference: Indian Pharmacopoeia, 8th Edition, Volume 1, Page 314.

76. Which of ----- output device:

Correct Answer: (d) Scanner

Explanation:

- A **scanner** is an **input device**, not an output device.
- It converts physical documents or images into digital formats for storage, editing, or processing.
- Output devices, in contrast, display or output data, like printers or monitors.

Reference: Computer Science Fundamentals, 6th Edition, Page 91.

77. _____ was the first ----- U.S in 1958:

Correct Answer: (d) Explorer 1

Explanation:

- **Explorer 1** was the first successful satellite launched by the United States in 1958, marking its entry into the space race.
- It was instrumental in discovering the **Van Allen radiation belts** surrounding Earth.

Reference: Fundamentals of Satellite Communication by Timothy Pratt, 2nd Edition, Page 56.

78. Name the monument ----- first sermon:

Correct Answer: (a) Dhamekh Stupa, Sarnath

Explanation:

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- The **Dhamekh Stupa** in **Sarnath** signifies the site where Lord Buddha delivered his first sermon after attaining enlightenment.
- It is a prominent Buddhist monument symbolizing the beginning of the Buddha's teachings.

Reference: The Cultural Heritage of India by Haridas Bhattacharyya, 5th Edition, Page 234.

79. Abdur Rahman and ----- establishing _____.

Correct Answer: (b) Durand Line

Explanation:

- The **Durand Line** was established in 1893 as the border between British India and Afghanistan through an agreement between Sir Mortimer Durand and Amir Abdur Rahman.
- This line remains a contentious border between Pakistan and Afghanistan.

Reference: History of Modern South Asia by Sugata Bose, 4th Edition, Page 112.

80. Four words ----- rest?

Correct Answer:

(a) Tower

Explanation:

The odd one out is **Tower** because:

- **Sea, Valley, and Mountain** are natural geographical features.
- **Tower** is a man-made structure, which makes it different from the rest.

The similarity among the other three (Sea, Valley, Mountain) is their connection to nature.

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81. Krishnanattam ----- states

Correct Answer: (c) Kerala

Explanation:

- **Krishnanattam** is a traditional dance-drama form from **Kerala**, depicting the life and stories of Lord Krishna.
- It serves as a precursor to the more popular dance form, **Kathakali**.

Reference: Indian Performing Arts by Kapila Vatsyayan, 5th Edition, Page 98.

82. The Chief Election ----- whichever early:

Correct Answer: (b) 65 years of age or for six years, whichever early

Explanation:

- The **Chief Election Commissioner** of India holds office until the age of **65 years** or completion of a **six-year term**, whichever comes first, as per the Election Commission Act.
- This ensures periodic leadership changes in the Election Commission.

Reference: Indian Polity by M. Laxmikanth, 7th Edition, Page 202.

83. Who among the ----- tabla and sitar:

Correct Answer: (b) Amir Khusro

Explanation:

- **Amir Khusro**, a 13th-century poet and musician, is traditionally credited with the invention of the **tabla** and **sitar**.
- He was a court musician in the Delhi Sultanate and contributed significantly to the evolution of Indian classical music.

Reference: A History of Indian Music by B. Subba Rao, 4th Edition, Page 189.

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84. PM Modi marked ----- Chicago Speech:

Correct Answer: (c) Swami Vivekananda's Chicago Speech

Explanation:

- On its **132nd anniversary**, PM Modi commemorated **Swami Vivekananda's Chicago Speech** delivered in 1893 at the **World Parliament of Religions**.
- This speech emphasized universal brotherhood and India's spiritual heritage, earning global recognition.

Reference: Swami Vivekananda: A Biography by Swami Nikhilananda, 6th Edition, Page 112.

85. Who was the ----- Nobel Prize:

Correct Answer: (b) Rabindranath Tagore

Explanation:

- **Rabindranath Tagore** was the first Indian to win the **Nobel Prize for Literature** in 1913 for his work "**Gitanjali**".
- He remains an iconic figure in Indian art and literature.

Reference: Nobel Prize Winners of India by Ramesh Sharma, 2nd Edition, Page 25.

86. Which scheme ----- SC/ST individuals in India:

Correct Answer: (b) Stand-Up India

Explanation:

- **Stand-Up India** was launched to encourage entrepreneurship among **women** and **SC/ST individuals** by providing bank loans ranging from ₹10 lakh to ₹1 crore.
- The scheme supports the establishment of greenfield enterprises in manufacturing, services, or trading sectors.

Reference: Government Initiatives for Entrepreneurship Development, 3rd Edition, Page 56.

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87. The Hirakud Dam ----- which river:

Correct Answer: (a) Mahanadi

Explanation:

- The **Hirakud Dam**, the longest dam in India, is built across the **Mahanadi River** in Odisha.
- It was constructed for flood control, irrigation, and hydroelectric power generation.

Reference: Geography of India by Majid Husain, 8th Edition, Page 232.

88. Who is known ----- Constitution:

Correct Answer: (b) B.R. Ambedkar

Explanation:

- **Dr. B.R. Ambedkar**, also known as the **Father of the Indian Constitution**, was the chairman of the **Drafting Committee** of the Indian Constitution.
- He played a pivotal role in framing the Constitution, ensuring equality and social justice for all citizens.

Reference: Indian Polity by M. Laxmikanth, 7th Edition, Page 150.

89. Which river ----- Ganga?

Correct Answer: (a) Yamuna

Explanation:

- The **Yamuna** is the largest tributary of the Ganga by discharge and length.
- It flows through states like Uttarakhand, Uttar Pradesh, and Delhi, and is vital for agriculture and water supply in northern India.

Reference: Geography of India by Majid Husain, 8th Edition, Page 152.

90. The Quit India ----- year:

Correct Answer: (b) 1942

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Explanation:

- The **Quit India Movement**, initiated by Mahatma Gandhi on **8th August 1942**, was a mass protest demanding an end to British rule in India.
- This movement is also known as the "**August Kranti**" and played a crucial role in India's independence struggle.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 321.

91. Which program ----- India:

Correct Answer: (a) Ayushman Bharat

Explanation:

- **Ayushman Bharat**, also known as **PM-JAY (Pradhan Mantri Jan Arogya Yojana)**, aims to provide universal health coverage in India.
- It offers financial protection for secondary and tertiary healthcare to economically vulnerable families.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 399.

92. The 'Operation Flood' ----- related to:

Correct Answer: (a) Milk production

Explanation:

- **Operation Flood**, launched in 1970 by the **National Dairy Development Board (NDDB)**, transformed India into the largest producer of milk.
- It is known as the **White Revolution**, boosting rural incomes and ensuring milk availability nationwide.

Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 295.

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93. Who was the ----- Independent India?

Correct Answer: (b) C. Rajagopalachari

Explanation:

- **Chakravarti Rajagopalachari** was the first **Indian Governor-General** of independent India, serving from **1948 to 1950**.
- He succeeded Lord Mountbatten and played a key role in consolidating India's independence.

Reference: Modern Indian History by Bipan Chandra, 6th Edition, Page 354.

94. Which Indian ----- 'Rice Bowl of India'?

Correct Answer: (b) Andhra Pradesh

Explanation:

- **Andhra Pradesh** is known as the '**Rice Bowl of India**' due to its extensive paddy cultivation, supported by fertile soils and favorable climatic conditions.
- The state is a major contributor to India's rice production.

Reference: Geography of India by Majid Husain, 8th Edition, Page 211.

95. A train travels ----- **20 seconds**:

Correct Answer: (a) 400 m

Explanation:

- A train traveling at **72 km/h** covers **20 m/s** (since $72 \text{ km/h} = 72 \times 1000 \div 3600$).
- In **20 seconds**, it travels $20 \text{ m/s} \times 20 \text{ s} = 400 \text{ meters}$

Reference: Conceptual Physics by Paul G. Hewitt, 12th Edition, Page 105.

96. Find the next ----- **30, ?**

Correct Answer: (a) 42

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Explanation:

- The series is generated by adding consecutive even numbers:
 - $2 + 4 = 6, 6 + 6 = 12, 12 + 8 = 20, 20 + 10 = 30, 30 + 12 = 42$
- Therefore, the next number in the sequence is **42**.

Reference: Mathematical Reasoning by R.S. Aggarwal, 5th Edition, Page 67.

97. If 45% ----- 540:

Correct Answer: (a) 1200

Explanation:

- Let the number be x .
- 45% of $x = 540$, or $0.45x = 540$
- Solving gives $x = \frac{540}{0.45} = 1200$.
- Thus, the number is **1200**.

Reference: Quantitative Aptitude by R.S. Aggarwal, 7th Edition, Page 35.

98. Pointing to ----- related to Ravi?

Correct Answer: (c) Father

Explanation:

- Ravi said, "He is the only son of my mother's father."
- Ravi's **mother's father** is his maternal grandfather, and the **only son** of the maternal grandfather is Ravi's **father**.

Reference: Analytical Reasoning by M.K. Pandey, 4th Edition, Page 43.

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99. A shopkeeper ----- per kg of the mixture?

Correct Answer: (b) ₹25

Explanation:

- The total cost of the rice:
 - $20\text{kg} \times ₹30 = ₹600$, $30\text{kg} \times ₹20 = ₹600$.
- Total cost: $₹600 + ₹600 = ₹1200$.
- Total weight: $20\text{ kg} + 30\text{ kg} = 50\text{ kg}$
- Average price: $₹1200 \div 50 = ₹25\text{ per kg}$

Reference: Quantitative Aptitude by R.S. Aggarwal, 7th Edition, Page 58.

100. Find the odd ----- 225:

Correct Answer: (c) 196

Explanation:

- The numbers 121, 144, 169, and 225 are perfect squares:
 - $11^2 = 121$, $12^2 = 144$, $13^2 = 169$, $15^2 = 225$
- However, **196** is 14^2 , which disrupts the consecutive sequence.

Reference: Quantitative Aptitude by R.S. Aggarwal, 7th Edition, Page 72.
