

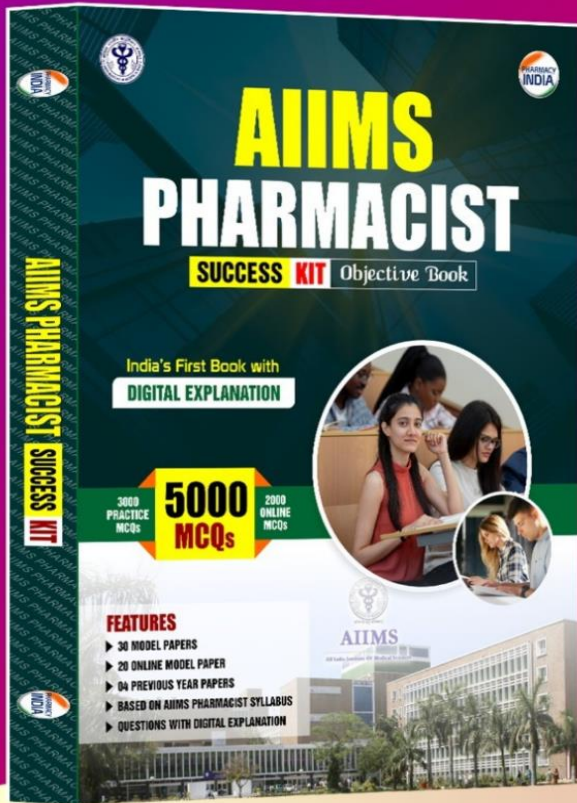


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1. Which of the ----- gas chromatography?

Correct Answer: Helium (c)

Explanation:

Helium is used as a carrier gas in gas chromatography because of its **inert nature**, **low viscosity**, and **high diffusivity**, which enhance **separation efficiency** and reduce **analysis time**.

Reference: "Principles and Applications of Gas Chromatography," Chapter 3, pp. 45–48.

2. Size----- called:

Correct Answer: Gel filtration chromatography (a)

Explanation:

Size-exclusion chromatography (SEC) is also called **gel filtration chromatography** as it separates molecules based on **size**, utilizing a **gel** with pores of specific dimensions. **Larger molecules** elute faster as they cannot enter the pores, while **smaller molecules** take longer to elute.

Reference: "Analytical Chemistry: Theory and Practice," Chapter 4, pp. 112–115.

3. The ----- is:

Correct Answer: Strongly acidic, cation exchanger (c)

Explanation:

Sulfonic acid resins are **strongly acidic** due to the presence of **-SO₃H functional groups**. These resins act as **cation exchangers**, exchanging positive ions (**cations**) in the solution, which makes them ideal for ion-exchange chromatography applications.

Reference: "Pharmaceutical Applications of Ion Exchange Resins," Journal of Chemical Education, Vol. 84, Issue 3.

4. Which ----- operation?

Correct Answer: Magnesium stearate (d)

Explanation:

Magnesium stearate is commonly used as a **lubricant** in capsule filling operations. It reduces

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friction between the **powder mixture** and the **capsule shell**, ensuring smooth filling and sealing processes.

Reference: "Capsule Technology and Development," Chapter 2, pp. 34–36.

5. If the ----- value?

Correct Answer: 200 to 245 (b)

Explanation:

The saponification value is the amount of **potassium hydroxide (KOH)** required to saponify one gram of fat. For **fatty suppository bases**, the saponification value typically ranges between **200 to 245**, which ensures the proper consistency and solubility of the suppository.

Reference: "Pharmaceutical Dosage Forms: Suppositories," Chapter 5, pp. 78–81.

6. Which ----- absorption?

Correct Answer: Lipophilicity (b)

Explanation:

Lipophilicity is a key factor influencing drug absorption. Drugs with higher lipophilicity can **cross lipid membranes** more efficiently, enhancing their absorption. **Partition coefficient (log P)** is often used to measure lipophilicity.

Reference: "Biopharmaceutics and Pharmacokinetics," Chapter 3, pp. 55–58.

7. What is the ----- pump?

Correct Answer: 60%–80% (c)

Explanation:

The **elementary osmotic pump (EOP)** releases drugs at a **constant rate** within the range of **60%–80%** of the drug content. This system uses **osmotic pressure** to deliver the drug in a controlled and sustained manner.

Reference: "Controlled Drug Delivery Systems," Chapter 4, pp. 92–96.

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8. Which of the ----- delivery?

Correct Answer: Diagnostic imaging (b)

Explanation:

Diagnostic imaging is not a method for transdermal drug delivery. Novel methods include **penetration enhancers**, **vesicular approaches** like liposomes, and **electroporation and sonophoresis**, which facilitate drug transport across the skin.

Reference: "Transdermal Drug Delivery: Principles and Practice," Chapter 6, pp. 112–115.

9. Generally, ----- improve?

Correct Answer: Quality (c)

Explanation:

Good Manufacturing Practices (GMP) aim to ensure the **quality** of pharmaceutical products by regulating their **manufacturing processes**, **hygiene**, and **documentation standards** to meet safety and efficacy requirements.

Reference: "Good Manufacturing Practices for Pharmaceuticals," Chapter 2, pp. 24–29.

10. Effervescent ----- of:

Correct Answer: Citric acid and tartaric acid with sodium bicarbonate (a)

Explanation:

Effervescent granules consist of **citric acid**, **tartaric acid**, and **sodium bicarbonate**, which react in the presence of water to release **carbon dioxide gas**. This reaction aids in the rapid dissolution and palatability of the product.

Reference: "Pharmaceutical Formulation Design," Chapter 8, pp. 135–138.

11. What is ----- monostearate?

Correct Answer: 3.8 (d)

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Explanation:

The **hydrophilic-lipophilic balance (HLB)** of **glyceryl monostearate** is **3.8**, indicating it is primarily **lipophilic** and suitable as an **oil-in-water emulsifier**.

Reference: "Pharmaceutical Emulsions," Chapter 3, pp. 72–75.

12. Conventional ----- acceptable for:

Correct Answer: (b) Hardness and friability test

Explanation:

1. **Hardness and friability test:**

- These tests evaluate the **mechanical strength** of tablets.
- The **friability test** measures a tablet's ability to withstand handling without breaking or losing excessive weight.
- Tablets losing **less than 0.5% to 1.0% of their weight** during the friability test are generally considered **acceptable**, as it indicates they are durable enough for handling and transportation.

2. **Weight variation test:**

- This test ensures that individual tablets fall within a specified range of their **average weight**, and it is unrelated to weight loss due to friability.

3. **Disintegration test:**

- This test evaluates the **time required for tablets to break down into smaller particles**, not weight loss or mechanical strength.

4. **Content uniformity test:**

- This test measures the uniformity of **active ingredient content** in tablets, independent of weight loss or physical durability.

Reference:

Indian Pharmacopoeia (2022), Friability Testing Guidelines (Vol. 1, pp. 700-702).

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13. Which lists ----- capsules?

Correct Answer: Glycol esters, silicones, silicon dioxide, metallic stearates, stearic acid, and talc (d)

Explanation:

Materials like **glycol esters, silicon dioxide, metallic stearates,** and **talc** are added to improve **flowability** by reducing friction, preventing clumping, and aiding in uniform capsule filling.

Reference: "Pharmaceutical Excipients Handbook," Chapter 5, pp. 102–106.

14. Solubility of a ----- influenced by:

Correct Answer: pH and their environment (a)

Explanation:

The **solubility** of many chemotherapeutic agents is significantly influenced by the **pH of the environment** and the **physicochemical properties of the drug**. Changes in pH can alter the ionization state of the drug, affecting its solubility and absorption.

Reference: "Physicochemical Principles of Pharmacy," Chapter 6, pp. 132–136.

15. Which drugs ----- addiction?

Correct Answer: Naloxone and Buprenorphine (d)

Explanation:

Naloxone is an opioid antagonist used to reverse opioid overdose, while **Buprenorphine** is a partial agonist that helps reduce opioid withdrawal symptoms and cravings. Together, they are approved for managing **opioid addiction**.

Reference: "Pharmacotherapy for Opioid Dependence," Chapter 8, pp. 181–184.

16. When was ----- passed?

Correct Answer: 10th of April, 1940 (a)

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Explanation:

The **Drugs and Cosmetics Act** was enacted on **10th April 1940** to regulate the **import, manufacture, and distribution of drugs** in India to ensure their safety, efficacy, and quality.

Reference: "Indian Drug Laws: A Comprehensive Overview," Chapter 2, pp. 25–28.

17. What is the ----- DPCO?

Correct Answer: **(b) Price of non-scheduled bulk drugs**

Explanation:

1. **Form II under DPCO:**

- Form II is specifically used for submitting details about the **prices of non-scheduled bulk drugs**.
- Non-scheduled drugs are not under direct price control but may still need to be reported for regulatory or monitoring purposes.

2. **Options Analysis:**

- **(a) Revision of prices of scheduled formulation:** This is incorrect, as Form II is not related to price revisions for scheduled formulations. Such details are addressed in other forms under the DPCO.
- **(b) Price of non-scheduled bulk drugs:** Correct, as Form II pertains to reporting and submitting price information for **non-scheduled bulk drugs**.
- **(c) Revision of prices of scheduled formulation imported in finished form:** Incorrect, as this is not the purpose of Form II.
- **(d) Yearly turnover of sales and expenses:** Incorrect, as Form II does not collect financial data such as turnover or expenses.

Reference:

Drug Price Control Order (DPCO) Guidelines (2022), Form II specifications.

18. The person other ----- or fine up to:

Correct Answer: 6 months or 1000 rupees (c)

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Explanation:

Dispensing medication without being a **registered pharmacist** is punishable under the **Drugs and Cosmetics Act, 1940**, with imprisonment for **6 months** or a fine of **1000 rupees**, or both, to ensure public safety.

Reference: "Pharmacy Practice and Ethics," Chapter 3, pp. 40–42.

19. In which years were ----- framed?

Correct Answer: 1954 and 1955 (d)

Explanation:

The **Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954**, and its **Rules of 1955** were implemented to prevent **misleading advertisements** of drugs and magical cures and ensure ethical promotion of medicines.

Reference: "Legal Aspects of Drug Advertising in India," Chapter 5, pp. 63–66.

20. The registered ----- exceed:

Correct Answer: 12 weeks or exceeds 12 weeks but does not exceed 20 weeks (c)

Explanation:

As per the **Medical Termination of Pregnancy (MTP) Act, 1971**, pregnancies up to **12 weeks** can be terminated with one registered medical practitioner's consent, while pregnancies between **12 to 20 weeks** require the opinion of two practitioners.

Reference: "Medical Termination of Pregnancy: A Legal Perspective," Chapter 4, pp. 51–54.

21. Pharmacist is ----- the:

Correct Answer: Medical profession and public (b)

Explanation:

A **pharmacist** serves as a vital link between the **medical profession** (doctors and healthcare providers) and the **public** by dispensing medications, providing drug information, and ensuring patient safety.

Reference: "Role of the Pharmacist in Healthcare," Chapter 1, pp. 12–15.

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22. What is the ----- Act?

Correct Answer: To regulate the import, manufacture, distribution, and sale of drugs and cosmetics (d)

Explanation:

The main objective of the **Drugs and Cosmetics Act, 1940**, is to regulate the **import, manufacture, distribution, and sale** of drugs and cosmetics to ensure their **safety, quality, and efficacy** for the public.

Reference: "Drugs and Cosmetics Act: An Overview," Chapter 2, pp. 20–24.

23. What does a ----- of?

Correct Answer: Two representatives of the central government and one representative of each state government (d)

Explanation:

The **Drug Consultative Committee (DCC)** includes **two representatives from the central government** and **one representative from each state government** to ensure uniformity in drug regulations across India.

Reference: "Drug Regulatory Framework in India," Chapter 6, pp. 82–85.

24. Which ----- drugs?

Correct Answer: Drugs and Magic Remedies Act (a)

Explanation:

The **Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954**, regulates advertisements to prohibit the **promotion of false claims** about drugs or magical cures that could mislead the public.

Reference: "Drug Advertisement Regulations," Chapter 7, pp. 95–97.

25. List of minimum ----- is under:

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Correct Answer: Schedule N (d)

Explanation:

Schedule N of the Drugs and Cosmetics Act specifies the **minimum equipment** required for the efficient operation of a pharmacy, including dispensing tools, storage facilities, and measuring devices.

Reference: "Schedules of Drugs and Cosmetics Act," Chapter 9, pp. 134–136.

26. In case of ----- present?

Correct Answer: Neck stiffness (b)

Explanation:

Neck stiffness, along with fever and headache, is a hallmark symptom of **meningitis**, caused by inflammation of the meninges surrounding the brain and spinal cord.

Reference: "Clinical Diagnosis and Management of Meningitis," Chapter 4, pp. 72–75.

27. Which of the ----- pathology?

Correct Answer: Pancreas (b)

Explanation:

The **pancreas** is central to the pathology of **diabetes mellitus**, as it produces **insulin**, a hormone that regulates blood glucose levels. Dysfunction of **beta cells** leads to hyperglycemia.

Reference: "Pathophysiology of Endocrine Disorders," Chapter 6, pp. 90–93.

28. Ghon's complex is ----- diseases?

Correct Answer: Pulmonary tuberculosis (a)

Explanation:

Ghon's complex is a characteristic finding in **pulmonary tuberculosis**. It consists of a **calcified focus** of infection and associated lymph node involvement, typically seen on a chest X-ray.

Reference: "Essentials of Tuberculosis Diagnosis," Chapter 3, pp. 48–50.

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29. Clubbing and ----- diseases?

Correct Answer: Bronchiectasis (a)

Explanation:

Clubbing (enlargement of the fingertips) and **cyanosis** (bluish discoloration of the skin) are seen in **bronchiectasis**, a chronic lung condition characterized by **dilated bronchi** and impaired oxygenation.

Reference: "Respiratory Pathologies: Diagnosis and Management," Chapter 5, pp. 61–64.

30. Which of the ----- fever?

Correct Answer: Meningitis (b)

Explanation:

Rheumatic fever commonly involves **arthritis**, **carditis**, and **chorea**. **Meningitis** is not associated with rheumatic fever, as it is typically caused by infections involving the meninges.

Reference: "Rheumatic Diseases and Their Management," Chapter 4, pp. 80–83.

31. Which ----- antidote?

Correct Answer: Sodium bicarbonate (a)

Explanation:

While **activated charcoal**, **magnesium oxide**, and **tannic acid** are considered universal antidotes due to their ability to adsorb toxins, **sodium bicarbonate** is used to correct acidosis but does not act as a general antidote.

Reference: "Toxicology and Antidotes," Chapter 8, pp. 105–107.

32. Acidosis, in case of ----- following drugs?

Correct Answer: Soda bicarb (b)

Explanation:

In cases of **acidosis** caused by poisoning, **sodium bicarbonate (soda bicarb)** is administered to neutralize excess acidity and restore the normal **pH balance** of the blood.

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Reference: "Clinical Management of Poisoning," Chapter 7, pp. 92–95.

33. In -----is used?

Correct Answer: Atropine (b)

Explanation:

Atropine, an anticholinergic drug, is the primary antidote for **organophosphorous poisoning**. It counteracts the excessive **acetylcholine accumulation** caused by cholinesterase inhibition.

Reference: "Emergency Medicine: Toxicology," Chapter 10, pp. 145–148.

34. Toxic effects ----- which drug?

Correct Answer: Prazosin (d)

Explanation:

Prazosin, an alpha-1 adrenergic blocker, is effective in treating **scorpion bite toxicity**. It helps manage **hypertension** and **cardiac dysfunction** caused by venom.

Reference: "Venomous Bites and Stings: Management," Chapter 9, pp. 122–124.

35. In case of ----- treatment?

Correct Answer: I.V. glucose with vitamin B complex and sedatives (a)

Explanation:

For **delirium tremens**, caused by severe alcohol withdrawal, the treatment involves **I.V. glucose**, **vitamin B complex** to prevent Wernicke's encephalopathy, and **sedatives** (e.g., benzodiazepines) to control agitation.

Reference: "Alcohol Withdrawal Syndromes and Management," Chapter 12, pp. 187–190.

36. Which ----- narcotics?

Correct Answer: Iodine (b)

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Explanation:

Narcotics include substances like **morphine**, **heroin**, and **codeine** that act on the **opioid receptors** to relieve pain. **Iodine**, however, is a chemical element not classified as a narcotic.

Reference: "Classification of Narcotics," Chapter 3, pp. 56–59.

37. Morphine ----- conditions?

Correct Answer: Severe traumatic pain (d)

Explanation:

Morphine, an opioid analgesic, is used to treat **severe traumatic pain** due to its potent pain-relieving properties. It is contraindicated in conditions like **bronchial asthma**, **infants**, and **head injuries** due to respiratory depression risks.

Reference: "Opioid Pharmacology," Chapter 5, pp. 88–91.

38. Which of the ----- overdose?

Correct Answer: Naloxone (c)

Explanation:

Naloxone is an opioid antagonist that rapidly reverses the effects of **opioid overdose**, including **coma** and **respiratory depression**, by competitively binding to opioid receptors.

Reference: "Opioid Antagonists in Emergency Care," Chapter 6, pp. 102–105.

39. The Narcotics ----- ministry?

Correct Answer: The Ministry of Home Affairs (a)

Explanation:

The **Narcotics Control Bureau (NCB)** operates under the **Ministry of Home Affairs**, focusing on combating **drug trafficking** and enforcing laws related to narcotic substances.

Reference: "Indian Drug Enforcement Agencies," Chapter 7, pp. 112–114.

40. Schedules I and IV ----- narcotics?

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Correct Answer: (b) Morphine

Revised Explanation:

1. Schedules I and IV:

- **Schedule I:** Covers substances with a high potential for abuse but with **recognized medical uses** under strict control.
- **Schedule IV:** A subset of Schedule I that includes substances with **limited therapeutic use** and high abuse potential, requiring the **strictest control** measures.

2. Morphine:

- Morphine is classified under **Schedule I** for its **medical uses** in pain management but also falls under **Schedule IV** due to its **addiction risk** and potential for abuse.

3. Other options:

- **Heroin:** Controlled under Schedule I and IV but with almost no accepted medical use, making it less relevant compared to Morphine.
- **Cocaine:** Classified only under Schedule I due to its limited medical application in some procedures.
- **Fentanyl:** Not included in Schedule IV but is controlled under Schedule I for its high potency and abuse risk.

Reference: *Single Convention on Narcotic Drugs (1961), United Nations.*

41. FSSAI (Food Safety ----- the year:

Correct Answer: (a) Aug 2011

Revised Explanation:

1. FSSAI Formation and Operationalization:

- The **Food Safety and Standards Authority of India (FSSAI)** was established under the **Food Safety and Standards Act, 2006.**

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- While the organization was **conceptually founded in 2007**, it became **fully operational in August 2011**, marking its actual inception in terms of regulatory implementation.

2. Options Analysis:

- **(a) Aug 2011**: Correct, as this is when FSSAI started its active operations and implementation of food safety laws.
- **(b) August 2000**: Incorrect, as FSSAI did not exist at this time.
- **(c) May 2007**: Incorrect, as this marks the legal establishment of FSSAI but not its full operationalization.
- **(d) September 2010**: Incorrect, as this is not associated with either establishment or operationalization.

Reference: *FSSAI Official Website & Food Safety and Standards Act, 2006.*

42. The spray ----- changing:

Correct Answer: Liquid to solid powder dosage form (c)

Explanation:

Spray drying technology converts a **liquid feed** into a **dry powder** by rapidly evaporating the solvent using a **hot drying gas**. It is commonly used for pharmaceutical formulations.

Reference: "Pharmaceutical Drying Technologies," Chapter 4, pp. 72–75.

43. What ----- emulsion?

Correct Answer: A mixture of two or more immiscible liquids (d)

Explanation:

An **emulsion** is a system consisting of **two or more immiscible liquids** (e.g., oil and water) where one liquid is dispersed as droplets in the other with the help of an **emulsifying agent**.

Reference: "Pharmaceutical Emulsion Systems," Chapter 5, pp. 83–86.

44. Licensing of ----- under:

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Correct Answer: (c) Agricultural and Processed Food Products Export Development Authority (APEDA)

Explanation:

1. Agricultural and Processed Food Products Export Development Authority (APEDA):

- APEDA is responsible for the **licensing, certification, and promotion of organic food products** in India.
- It operates under the **National Programme for Organic Production (NPOP)**, which sets standards for organic food production and exports.

2. Other options:

- **(a) Food Safety and Standards Authority of India (FSSAI):**
 - FSSAI regulates **food safety** and standards, including labeling and advertising of organic food, but licensing is managed by APEDA under the NPOP.
- **(b) Indian Council of Medical Research (ICMR):**
 - ICMR focuses on **medical research** and has no role in organic food licensing.
- **(d) Central Drug Research Institute (CDRI):**
 - CDRI deals with **pharmaceutical research** and does not govern food product licensing.

Reference:

Agricultural and Processed Food Products Export Development Authority (APEDA), *National Programme for Organic Production (NPOP) Guidelines.*

45. The shelf ----- Rules 1945?

Correct Answer: Rule 161 B (a)

Explanation:

The **shelf life** or **expiry period** of Ayurvedic drugs is governed by **Rule 161 B** of the Drugs and Cosmetics Rules, 1945, which ensures product efficacy and safety.

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Reference: "Ayurvedic Drug Regulations," Chapter 3, pp. 48–51.

46. The -----, are:

Correct Answer: Good Manufacturing Practices and Standard Operating Procedure (b)

Explanation:

GMP ensures **quality assurance** in manufacturing, while **SOP** provides **detailed, written instructions** to ensure consistency in operations.

Reference: "Pharmaceutical Industry Guidelines," Chapter 6, pp. 101–103.

47. What is the ----- product?

Correct Answer: To enhance the shelf life period of food items (d)

Explanation:

Preservatives prevent **microbial growth**, spoilage, and chemical changes in food products, thereby increasing their **shelf life** and maintaining quality.

Reference: "Food Preservation Techniques," Chapter 7, pp. 112–114.

48. Which of ----- preservatives?

Correct Answer: Cyanides (c)

Explanation:

Cyanides are toxic compounds and are not used as preservatives. Common preservatives include **benzoates**, **parabens**, and **nitrites** to prevent food spoilage.

Reference: "Food Additives and Their Functions," Chapter 8, pp. 125–127.

49. Patient and ----- D&C Act 1940?

Correct Answer: Section 3(h) (a)

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Explanation:

Under the **Drugs and Cosmetics Act, 1940**, **Patient and Proprietary (P&P) drugs** are defined in **Section 3(h)**, which classifies them as non-prescription drugs available for self-medication.

Reference: "Drugs and Cosmetics Act Handbook," Chapter 2, pp. 45–48.

50. Self-generated ----- drugs?

Correct Answer: Sandhana Kalpana (c)

Explanation:

Sandhana Kalpana refers to the Ayurvedic preparation of **fermented products** that naturally produce alcohol, such as **Arishtas** and **Asavas**, aiding in preservation and therapeutic efficacy.

Reference: "Ayurvedic Pharmaceutical Science," Chapter 5, pp. 78–81.

51. Which ----- the fruit?

Correct Answer: Squeezing or maceration (c)

Explanation:

Squeezing or **maceration** is the standard technique for extracting **juice** from fruits by breaking down their cellular structure to release liquids.

Reference: "Food Processing Techniques," Chapter 4, pp. 62–64.

52. The consumption ----- vitamin?

Correct Answer: Vitamin C (c)

Explanation:

Orange juice is rich in **Vitamin C**, an essential antioxidant that supports **immune function**, **collagen synthesis**, and **wound healing**.

Reference: "Nutrition and Dietary Sources," Chapter 3, pp. 52–54.

53. What is the ----- products?

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Correct answer: (a) 1–12%

Explanation:

1. Alcohol content in Ayurvedic fermented products:

- Ayurvedic fermented products, such as **Asavas** and **Arishtas**, are traditional preparations where natural fermentation is used to extract and preserve the active ingredients of herbs.
- The alcohol content in these preparations is generally within the range of **1–12%**, which acts as a natural preservative and solvent to enhance the bioavailability of the active compounds.

2. Options analysis:

- **(a) 1–12%**: Correct, as this is the typical range of alcohol content in Ayurvedic fermented products.
- **(b) 2–25%**: Incorrect, as 25% is significantly higher than the usual range for these products.
- **(c) 3–25%**: Incorrect, for the same reason as (b).
- **(d) 40–48%**: Incorrect, as this level of alcohol is found in distilled alcoholic beverages, not Ayurvedic preparations.

Reference:

Ayurvedic Formulary of India (AFI), Ministry of AYUSH, Govt. of India.

54. Cocoa and ----- source?

Correct Answer: Theobroma Cacao (b)

Explanation:

Cocoa and chocolate are derived from the seeds of **Theobroma Cacao**, a tropical plant native to South America, valued for its high **flavonoid** and **antioxidant** content.

Reference: "Plant-Based Nutraceuticals," Chapter 7, pp. 98–100.

55. Which ----- in India?

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Correct Answer: FPO Mark (b)

Explanation:

The **FPO (Fruit Products Order) mark** certifies that processed fruit products meet the standards of **safety and quality** set by the Indian government.

Reference: "Food Certification Standards in India," Chapter 8, pp. 110–113.

56. Protein ----- gram?

Correct Answer: 4 calories (c)

Explanation:

Proteins yield **4 calories per gram**, making them a significant **energy source** while serving critical roles in **muscle repair, enzyme function, and immune response**.

Reference: "Human Nutrition and Energy Balance," Chapter 2, pp. 31–33.

57. The ----- and Marasmus.

Correct Answer: Protein (a)

Explanation:

Kwashiorkor and **Marasmus** are severe forms of **protein-energy malnutrition** caused by insufficient protein intake, leading to **growth retardation** and **wasting**.

Reference: "Pediatric Nutrition and Malnutrition," Chapter 5, pp. 75–78.

58. Deficiency of ----- healing.

Correct Answer: Essential fatty acids (b)

Explanation:

Lack of **essential fatty acids (EFAs)**, such as **linoleic acid** and **alpha-linolenic acid**, leads to symptoms like **dry skin, hair loss, and delayed wound healing** due to their role in maintaining skin integrity and cellular function.

Reference: "Role of Fats in Human Nutrition," Chapter 6, pp. 88–91.

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59. Which of the ----- growth?

Correct Answer: Protein (a)

Explanation:

Proteins are essential for building and repairing **muscle tissues** and producing **antibodies**, which play a crucial role in **immune defense**.

Reference: "Macronutrients in Health," Chapter 3, pp. 45–47.

60. Saturated ----- quantity?

Correct Answer: (c) Less than 7%

Explanation:

1. **Saturated Fats and Cardiovascular Health:**

- Saturated fats increase **LDL cholesterol** levels, which is a significant risk factor for **cardiovascular diseases (CVD)**.
- For individuals with **existing heart disease, diabetes, or high cholesterol**, stricter guidelines recommend limiting saturated fat intake to **less than 7% of total daily calories** for better cardiovascular protection.

2. **Options Analysis:**

- **(a) Less than 10%:** While general recommendations suggest this limit for the general population, stricter control (<7%) is advised for at-risk groups.
- **(b) More than 15%:** Incorrect, as this increases the risk of CVD significantly.
- **(c) Less than 7%:** Correct, especially for individuals aiming for optimal heart health or those with pre-existing conditions.
- **(d) More than 9%:** Incorrect, as this exceeds the recommended limit.

Reference:

American Heart Association (AHA) Guidelines (2021). *Dietary Fats and Cardiovascular Disease*.

61. World ----- celebrated on:

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Correct Answer: 7 April (b)

Explanation:

World Health Day is observed annually on **7 April** to mark the founding of the **World Health Organization (WHO)** and to raise awareness about global health issues.

Reference: "Global Health Initiatives," Chapter 1, pp. 12–14.

62. Rashtriya ----- government?

Correct Answer: Ministry of Labour and Employment (a)

Explanation:

The **Rashtriya Swasthya Bima Yojana (RSBY)** is a health insurance scheme implemented under the **Ministry of Labour and Employment**, targeting **unorganized sector workers**.

Reference: "Government Health Schemes in India," Chapter 2, pp. 28–30.

63. In Ayurveda, ----- Acharya?

Correct Answer: Sushruta (d)

Explanation:

The concept of **swasthya** (health) is elaborated by **Acharya Sushruta**, defining it as a balanced state of **doshas**, **agni**, **dhatu**s, and **malas**, along with mental and spiritual well-being.

Reference: "Principles of Ayurveda," Chapter 1, pp. 10–12.

64. The National ----- which year?

Correct Answer: 2005 (b)

Explanation:

The **National Rural Health Mission (NRHM)** was launched in **2005** to improve **healthcare delivery** in rural areas, with a focus on maternal and child health and access to essential services.

Reference: "Indian Health Policy Framework," Chapter 3, pp. 48–51.

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65. How many ----- as of 2013?

Correct Answer: 277 (a)

Explanation:

The **Essential Drug List** in Ayurveda includes **277 drugs** (as of 2013), aimed at standardizing treatment protocols and ensuring availability of **commonly used formulations** in public health systems.

Reference: "Ayurvedic Pharmacopoeia," Chapter 5, pp. 78–81.

66. Which of the ----- constipation (IBS-C)?

Correct Answer: Tegaserod (d)

Explanation:

Tegaserod is a **selective 5-HT₄ receptor agonist** used for the treatment of **IBS-C** by increasing intestinal motility and reducing abdominal discomfort.

Reference: "Pharmacology of Gastrointestinal Disorders," Chapter 8, pp. 112–115.

67. Which of the ----- in B-cell malignancies?

Correct Answer: Rituximab (b)

Explanation:

Rituximab is a **monoclonal antibody** that targets **CD20**, a protein found on B-cells, and is used in the treatment of **B-cell non-Hodgkin's lymphoma** and **chronic lymphocytic leukemia**.

Reference: "Cancer Immunotherapy," Chapter 7, pp. 96–99.

68. Which drug is a ----- hypertension?

Correct Answer: Aliskiren (c)

Explanation:

Aliskiren is a **direct renin inhibitor**, which blocks the renin-angiotensin-aldosterone system (RAAS) at its origin, reducing blood pressure by preventing the formation of **angiotensin I**.

Reference: "Hypertension Management Guidelines," Chapter 4, pp. 72–74.

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69. Which of the ----- gamma (PPAR- γ)?

Correct Answer: Pioglitazone (c)

Explanation:

Pioglitazone is a **thiazolidinedione** that activates **PPAR- γ** , improving insulin sensitivity and enhancing glucose uptake in peripheral tissues. It is used in the management of **type 2 diabetes mellitus**.

Reference: "Diabetes Mellitus: Pharmacological Approaches," Chapter 6, pp. 89–91.

70. Which of ----- failure?

Correct Answer: Eplerenone (b)

Explanation:

Eplerenone selectively blocks the **mineralocorticoid receptor**, reducing sodium retention and improving outcomes in **heart failure** and **post-myocardial infarction** patients.

Reference: "Cardiovascular Pharmacology," Chapter 8, pp. 102–105.

71. Which of the ----- activation?

Correct Answer: Denosumab (c)

Explanation:

Denosumab is a monoclonal antibody that binds to **RANKL**, preventing **osteoclast activation**, and is used in treating conditions like **osteoporosis** and **bone metastases**.

Reference: "Bone and Mineral Disorders: Therapeutics," Chapter 5, pp. 67–70.

72. Which of the ----- pain?

Correct Answer: Lidocaine (b)

Explanation:

Lidocaine, a local anesthetic, acts by blocking **sodium channels**, inhibiting nerve conduction and providing relief from **neuropathic pain**.

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Reference: "Neuropathic Pain Management," Chapter 3, pp. 42–44.

73. Which of the ----- arthritis?

Correct Answer: Tofacitinib (a)

Explanation:

Tofacitinib is a **Janus kinase (JAK) inhibitor** that interferes with intracellular signaling pathways, reducing inflammation in **rheumatoid arthritis**.

Reference: "Targeted Therapies in Rheumatology," Chapter 6, pp. 85–88.

74. Which of ----- in asthma?

Correct Answer: Zileuton (b)

Explanation:

Zileuton inhibits **5-lipoxygenase**, preventing the formation of leukotrienes, which are mediators of **bronchoconstriction** and **inflammation** in asthma.

Reference: "Pharmacological Management of Asthma," Chapter 7, pp. 98–101.

75. Which of ----- transplantation?

Correct Answer: Sirolimus (c)

Explanation:

Sirolimus binds to **FKBP12** and inhibits the **mTOR pathway**, suppressing T-cell activation and preventing organ rejection in transplantation.

Reference: "Immunosuppressive Agents in Transplantation," Chapter 9, pp. 115–118.

76. Which ----- internet?

Correct Answer: HTTPS (b)

Explanation:

HTTPS (HyperText Transfer Protocol Secure) encrypts data exchanged between the user and

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the website using **SSL/TLS** protocols, ensuring secure communication and protecting sensitive information.

Reference: "Web Security Essentials," Chapter 4, pp. 58–60.

77. In MS ----- slideshow?

Correct Answer: Esc (a)

Explanation:

In **Microsoft PowerPoint**, the **Esc key** is used to **stop or exit a slideshow** and return to the editing mode.

Reference: "MS Office Shortcuts and Features," Chapter 3, pp. 42–44.

78. Which of ----- sensitive files?

Correct Answer: Encrypting them (b)

Explanation:

Encryption secures sensitive files by converting them into an unreadable format using **cryptographic algorithms**, ensuring data confidentiality and preventing unauthorized access.

Reference: "Data Security and Privacy Techniques," Chapter 5, pp. 75–78.

79. What is ----- Windows?

Correct Answer: To display open applications and system icons (b)

Explanation:

The **taskbar** in Windows displays **open applications**, **system icons**, and the **Start menu**, allowing users to easily switch between tasks and access frequently used tools.

Reference: "Windows Operating System: A Guide," Chapter 2, pp. 28–31.

80. Which ----- printer?

Correct Answer: Router Printer (d)

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Explanation:

Printers like **Laser**, **Inkjet**, and **Thermal** are common types, whereas a **Router Printer** does not exist. Routers are used for **network connectivity**, not printing.

Reference: "Computer Hardware Devices," Chapter 6, pp. 89–92.

81. Which ----- Raj in India?

Correct Answer: Balwant Rai Mehta Committee (a)

Explanation:

The **Balwant Rai Mehta Committee** (1957) recommended the establishment of the **Panchayati Raj system** in India to promote **grassroots democracy** through decentralized governance.

Reference: "Indian Political Administration," Chapter 7, pp. 104–107.

82. Which of ----- in India?

Correct Answer: (b) Krishna-Godavari Basin

Explanation:

1. **Krishna-Godavari Basin:**

- The **Krishna-Godavari Basin**, located along the eastern coast of India in Andhra Pradesh, is the **largest gas field in India**.
- It includes significant discoveries such as the **Dhirubhai-1 and Dhirubhai-3 fields** operated by Reliance Industries, which are part of the **KG-D6 block**.
- This basin contributes substantially to India's **natural gas production**, making it the largest in terms of gas reserves and production.

2. **Bombay High:**

- Bombay High, located off the western coast, is the largest **oil field** in India but does not hold the title for the largest gas reserves.

3. **Cambay Basin:**

- The Cambay Basin in Gujarat is known for both oil and gas reserves but is smaller in scale compared to the Krishna-Godavari Basin.

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4. Rajasthan Basin:

- Rajasthan Basin is primarily associated with oil production, particularly the **Barmer oil fields**, and is not significant in terms of natural gas production.

Reference:

Ministry of Petroleum and Natural Gas, Government of India (2022) - Overview of India's Oil and Gas Resources.

83. The Simon ----- because:

Correct Answer: It did not include any Indian members (a)

Explanation:

The **Simon Commission** (1928) was boycotted because it did not have any **Indian members**, reflecting the British disregard for Indian self-governance aspirations.

Reference: "Indian Freedom Struggle: Key Events," Chapter 5, pp. 68–71.

84. The first ----- year?

Correct Answer: 1975 (b)

Explanation:

India's first satellite, **Aryabhata**, was launched in **1975** from the Soviet Union. It marked a significant milestone in India's **space program**.

Reference: "History of Indian Space Research," Chapter 4, pp. 55–57.

85. Who was ----- Prize?

Correct Answer: Arundhati Roy (b)

Explanation:

Arundhati Roy won the **Booker Prize** in **1997** for her novel "**The God of Small Things**", becoming the first Indian author to receive this prestigious award.

Reference: "Indian Literature and Global Recognition," Chapter 6, pp. 92–94.

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86. Which river ----- Pradesh?

Correct Answer: (c) Subansiri

Explanation:

1. Subansiri River:

- The **Subansiri River** is the largest tributary of the Brahmaputra River and forms the **natural boundary** between Assam and Arunachal Pradesh.
- It flows through Arunachal Pradesh and Assam, playing a significant geographical and cultural role in the region.

2. Other Options:

- **(a) Brahmaputra:** The Brahmaputra flows through Assam but does not form a boundary with Arunachal Pradesh.
- **(b) Lohit:** The Lohit River is a tributary of the Brahmaputra and flows through Arunachal Pradesh but does not form the boundary.
- **(d) Dibang:** The Dibang River, another tributary of the Brahmaputra, flows through Arunachal Pradesh but does not demarcate the boundary with Assam.

Reference:

Geographical Survey of India (2022) - River Systems and Boundaries of Northeastern India.

87. The 'Forward ----- fighter?

Correct Answer: Subhas Chandra Bose (a)

Explanation:

Subhas Chandra Bose founded the **Forward Bloc** in **1939** as a faction within the Indian National Congress, advocating for a more radical approach to achieving independence.

Reference: "Freedom Fighters of India," Chapter 7, pp. 108–111.

88. Which of the ----- in India?

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Correct Answer: Kallanai Dam (a)

Explanation:

The **Kallanai Dam** (also known as the Grand Anicut), built over the **Cauvery River** in Tamil Nadu, is one of the world's oldest **water-diversion structures**, constructed around **100 CE**.

Reference: "History of Indian Irrigation Systems," Chapter 5, pp. 73–75.

89. The 'Treaty of ----- parties?

Correct Answer: Siraj-ud-Daulah and Robert Clive (a)

Explanation:

The **Treaty of Alinagar** (1757) was signed between **Siraj-ud-Daulah**, the Nawab of Bengal, and **Robert Clive** of the British East India Company, preceding the Battle of Plassey.

Reference: "Colonial Treaties in India," Chapter 4, pp. 60–63.

90. Who was the ----- India?

Correct Answer: H.J. Kania (d)

Explanation:

Harilal Jekisundas Kania was the **first Chief Justice** of independent India, serving from **1950 to 1951**, and played a pivotal role in the establishment of the **Supreme Court of India**.

Reference: "Judiciary in Independent India," Chapter 2, pp. 22–25.

91. In a certain code, "----- "DEAR" written?

Correct Answer: 4215 (a)

Explanation:

The code is based on assigning specific digits to letters in reverse alphabetical order:

- R = 5, E = 1, A = 2, D = 4.
Thus, "DEAR" is written as **4215**.

Reference: Logical Reasoning and Coding-Decoding, Chapter 2, pp. 30–33.

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92. Pointing to a ----- to Rahul?

Correct Answer: Sister (a)

Explanation:

Rahul's **grandfather's only son** would be Rahul's father. Therefore, the girl is Rahul's **sister**.

Reference: Logical Family Relations, Chapter 1, pp. 12–14.

93. Choose the -----, Bat.

Correct Answer: Bat (d)

Explanation:

Bat is a **mammal**, while **eagle**, **crow**, and **sparrow** are all **birds**.

Reference: Classification in Biology, Chapter 3, pp. 40–42.

94. What ----- 12, 20, 30?

Correct Answer: 42 (c)

Explanation:

The pattern follows the addition of consecutive even numbers:

- $2 + 4 = 6$
- $6 + 6 = 12$
- $12 + 8 = 20$
- $20 + 10 = 30$
- $30 + 12 = 42$

Reference: Numerical Patterns and Series, Chapter 4, pp. 55–58.

95. If in a -----written?

Correct Answer: (b) KJPO

Analysis:

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1. "BEAR" → "CZBS":

- Compare each letter:
 - B → C: +1 (next letter in the alphabet)
 - E → Z: -5 (backward by 5 positions in the alphabet)
 - A → B: +1 (next letter in the alphabet)
 - R → S: +1 (next letter in the alphabet)
- The transformation alternates between +1 and -5.

2. Apply the same pattern to "LION":

- L → M: +1
- I → D: -5
- O → P: +1
- N → O: +1

Result: "LION" → "MDPO"

96. A man sells ----- the article?

Correct Answer: ₹750 (a)

Explanation:

Let the cost price be ₹x.

Profit % = (Selling Price - Cost Price) / Cost Price × 100

8 = (810 - x) / x × 100

Solving: x = ₹750.

Reference: Basic Profit and Loss Calculations, Chapter 3, pp. 45–47.

97. A boat takes -----of the current?

Correct Answer: 1 km/h (b)

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Explanation:

Let the speed of the current be x .

- Downstream speed = $(3 + x)$, time = $6 / (3 + x)$.
- Upstream speed = $(3 - x)$, time = $4 / (3 - x)$.
Total time = 2 hours. Solving, $x = 1$ km/h.

Reference: Problems on Boats and Streams, Chapter 6, pp. 92–95.

98. A man invests ----- of 5 years?

Correct Answer: ₹28,000 (a)

Explanation:

Simple Interest = $(\text{Principal} \times \text{Rate} \times \text{Time}) / 100$
 $= (20,000 \times 8 \times 5) / 100 = ₹8,000$.

Total Amount = Principal + Interest = ₹20,000 + ₹8,000 = ₹28,000.

Reference: Interest Calculations Simplified, Chapter 4, pp. 52–54.

99. A shopkeeper -----percentage?

Correct Answer: 8% (b)

Explanation:

Let the cost price be ₹100.

Marked price = ₹100 + 20% of ₹100 = ₹120.

Selling price after 10% discount = ₹120 - 10% of ₹120 = ₹108.

Profit % = $(\text{Profit} / \text{Cost Price}) \times 100 = (\₹8 / ₹100) \times 100 = 8\%$.

Reference: Profit and Discount Concepts, Chapter 5, pp. 65–68.

100. A can complete a ----- complete the task?

Correct Answer: 6 days (b)

Explanation:

Work done by A in 1 day = $1/10$, work done by B in 1 day = $1/15$.

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Combined work in 1 day = $(1/10 + 1/15) = 1/6$.

Time taken = $1 / (1/6) = 6$ days.

Reference: Time and Work Problems, Chapter 7, pp. 80–83.



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