

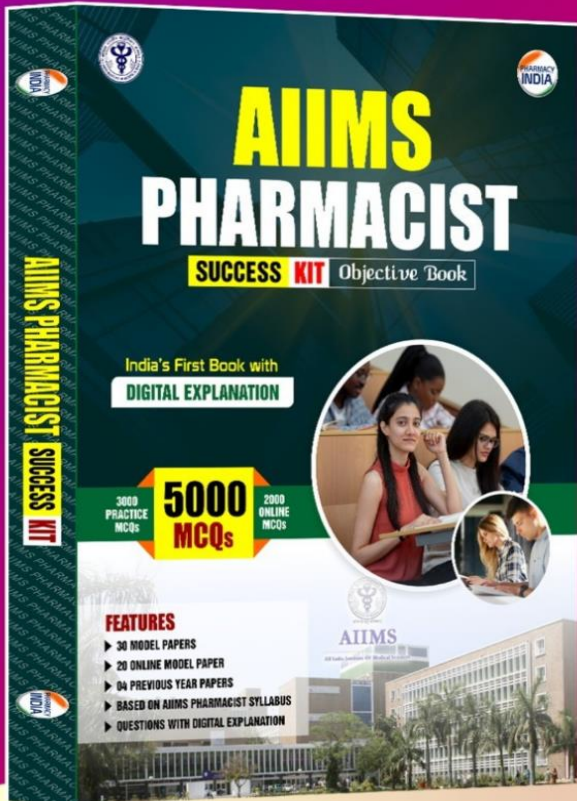


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1. Structural and ----- system is:

Correct Answer: (d) Neuron

Explanation:

- The **neuron** is the basic structural and functional unit of the nervous system, responsible for transmitting nerve impulses.
- Other options:
 - **Brain:** Central organ, not a single unit.
 - **Axon and Dendron:** Components of a neuron.

Reference: Guyton and Hall Textbook of Medical Physiology, 14th Edition, Page 591.

2. pH of the ----- presence of:

Correct Answer: (a) HCl

Explanation:

- The stomach secretes **hydrochloric acid (HCl)**, which maintains a highly acidic pH (1.5–3.5) to aid digestion.
- Other acids listed are not found in the stomach.

Reference: Essentials of Medical Physiology by Sembulingam, 8th Edition, Page 451.

3. SI unit -----temperature is:

Correct Answer: (c) Kelvin

Explanation:

- The **SI unit of temperature** is **Kelvin (K)**.
- Other options:
 - **Fahrenheit and Celsius:** Commonly used temperature scales but not SI units.
 - **Joule:** SI unit of energy.

Reference: Physics for Scientists and Engineers by Serway and Jewett, 10th Edition, Page 25.

4. Sterilization ----- known as:

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Correct Answer: (c) Incineration

Explanation:

- **Incineration** involves the direct use of flame to sterilize objects, commonly used for loops in microbiology.
 - Other methods:
 - **Dry Heat Sterilization:** Uses ovens.
 - **Moist Heat Sterilization:** Uses steam.
 - **Chemical Sterilization:** Uses chemicals like ethylene oxide.
- Reference:** Pharmaceutical Microbiology by Hugo and Russell, 8th Edition, Page 105.
-

5. What is ----- shelf-life:

Correct Answer: (b) Preservative

Explanation:

- **Preservatives** prevent microbial growth and degradation, extending the shelf life of products.
 - Other options:
 - **Diluent:** a low dose of a potent drug requires the incorporation of a substance into the formulation to increase the bulk volume of the powder and hence the size of the tablet. This excipient, known as the filler or the diluent.
 - **Binder:** Helps in tablet formulation.
 - **Glidant:** The role of the glidant is to improve the flowability of the powder.
- Reference:** Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1118.
-

6. First discovered ----- antibiotic was:

Correct Answer: (b) Penicillin

Explanation:

- **Penicillin** was the first antibiotic discovered by **Alexander Fleming** in 1928. It is derived from the Penicillium mold and revolutionized the treatment of bacterial infections.
 - Other options:
 - **Erythromycin, Piperacillin, and Azithromycin** were discovered later.
- Reference:** Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 1267.

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7. Nitrogen is ----- constituent of:

Correct Answer: (a) Glycine

Explanation:

- **Glycine** is an amino acid containing nitrogen in its amino (-NH₂) group, essential for protein synthesis.
- Other options:
 - **Glucose, Fructose, and Galactosamine:** These are carbohydrates and do not contain nitrogen.

Reference: Lehninger Principles of Biochemistry, 7th Edition, Page 120.

8. Bonds formed ----- known as:

Correct Answer: (d) Covalent bond

Explanation:

- **Covalent bonds** involve the sharing of electron pairs between atoms to achieve stability.
- Other types:
 - **Hydrogen bond:** Weak bond involving hydrogen.
 - **Ionic bond:** Involves transfer of electrons.
 - **Co-ordinate bond:** One atom provides both shared electrons.

Reference: General Chemistry by Linus Pauling, 3rd Edition, Page 245.

9. Which of ----- Adipose tissue:

Correct Answer: (c) Fat

Explanation:

- **Adipose tissue** stores energy in the form of **triglycerides (fats)**. It also provides insulation and cushioning.
- Other options:
 - **Protein and carbohydrate:** Stored in muscles and liver, respectively.
 - **Fibres:** Structural components, not energy storage.

Reference: Human Physiology by Stuart Ira Fox, 15th Edition, Page 215.

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10. Cancer ----- :

Correct Answer: (c) Uncontrolled cell growth

Explanation:

- **Cancer** is characterized by **uncontrolled cell division**, leading to tumor formation and potential metastasis.
 - Other options:
 - **Controlled cell growth and death:** Represent normal cellular processes like mitosis and apoptosis.
Reference: Robbins and Cotran Pathologic Basis of Disease, 10th Edition, Page 268.
-

11. Which of the ----- oedema and hypertension?

Correct Answer: (a) Furosemide

Explanation:

- **Furosemide** is a **loop diuretic** that inhibits the **Na⁺K⁺2Cl⁻ co-transporter** in the ascending limb of the loop of Henle, causing diuresis. It is commonly used for **oedema** and **hypertension**.
 - Other options:
 - **Hydrochlorothiazide:** Thiazide diuretic.
 - **Spironolactone:** Potassium-sparing diuretic.
 - **Metolazone:** Thiazide-like diuretic.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 622.
-

12. In the context -----"half-life" represent?

Correct Answer: (b) The time it takes for half of the drug to be eliminated from the body

Explanation:

- **Half-life** is the time required for the plasma concentration of a drug to decrease by **50%**. It is crucial for determining dosing intervals and drug clearance.
- Other options:
 - **Peak concentration:** Refers to the highest plasma concentration after administration.

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- **Duration of action:** Time for the drug to produce effects.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 77.

13. What is the ----- hypercholesterolemia?

Correct Answer: (c) Inhibition of HMG-CoA reductase

Explanation:

- **Statins** inhibit **HMG-CoA reductase**, a key enzyme in cholesterol biosynthesis, reducing LDL cholesterol levels.
- Other options:
 - **Cholesterol absorption inhibition:** Ezetimibe.
 - **Bile stimulation and lipase activation:** Not mechanisms of statins.
Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 1127.

14. What is the ----- pharmaceutical industry?

Correct Answer: (a) Ensuring the safety and efficacy of pharmaceutical products

Explanation:

- **GMP** guidelines ensure that pharmaceutical products meet quality standards for **safety, efficacy, and consistency**.
- Other options:
 - **Marketing and cost reduction:** Not GMP goals.
 - **Expediting drug approval:** Handled by regulatory authorities, not GMP.
Reference: GMP Guidelines by WHO, Official Documentation.

15. In the context ----- coating" refer to?

Correct Answer: (b) A coating that delays drug release until it reaches the small intestine

Explanation:

- **Enteric coating** protects the drug from stomach acid and prevents early release until it reaches the **alkaline environment of the small intestine**.
- Other options:
 - **Taste enhancement and light protection:** Not related to enteric coating.

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- **Improved absorption in the stomach:** Contradicts the purpose of enteric coating.
Reference: Pharmaceutics by Aulton, 5th Edition, Page 282.
-

16. What is the -----respiratory therapy?

Correct Answer: (c) To convert liquid medication into a fine mist for inhalation

Explanation:

- A **nebulizer** converts liquid medication into a mist that can be easily inhaled, allowing for direct delivery to the lungs for conditions like asthma or COPD.
 - Other options:
 - **Oxygen delivery and lung capacity measurement:** Handled by oxygen masks and spirometers, respectively.
 - **Intravenous medications:** Administered through IV devices, not nebulizers.
Reference: Essentials of Respiratory Care by White and Phalen, 7th Edition, Page 125.
-

17. Which vitamin is ----- of connective tissues?

Correct Answer: (b) Vitamin C

Explanation:

- **Vitamin C** is critical for **collagen synthesis** and maintaining the integrity of connective tissues. It also promotes wound healing and protects against oxidative damage.
 - Other options:
 - **Vitamin A:** Maintains vision and skin health.
 - **Vitamin D:** Regulates calcium metabolism.
 - **Vitamin K:** Involved in blood clotting.
Reference: Harper's Illustrated Biochemistry, 31st Edition, Page 325.
-

18. What is the ----- blood-brain barrier?

Correct Answer: (c) To protect the brain from harmful substances

Explanation:

- The **blood-brain barrier (BBB)** prevents harmful substances, toxins, and pathogens from entering the brain while allowing essential nutrients and oxygen to pass through.

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- Other options:
 - **Drug metabolism and absorption:** Not functions of the BBB.
Reference: Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 788.
-

19. What is the ----- respiratory conditions?

Correct Answer: (c) To dilate the airways and improve airflow

Explanation:

- **Bronchodilators** relax the smooth muscles of the airways, improving airflow and relieving symptoms like wheezing and shortness of breath in conditions like asthma and COPD.
 - Other options:
 - **Reduce inflammation and promote mucus production:** Anti-inflammatory drugs and mucolytics, respectively.
 - **Suppress cough reflex:** Antitussives.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 720.
-

20. Which of the -----level blood stream?

Correct Answer: (b) Sustained release tablets

Explanation:

- **Sustained release tablets** are formulated to release the drug slowly over time, ensuring prolonged therapeutic effects and reducing dosing frequency.
 - Other options:
 - **Immediate release tablets:** Release medication quickly.
 - **Effervescent tablets:** Dissolve rapidly in water.
 - **Chewable tablets:** Require mastication before swallowing.
Reference: Pharmaceutics by Aulton, 5th Edition, Page 298.
-

21. What is the ----- liquid phase?

Correct Answer: (c) Sublimation

Explanation:

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- **Sublimation** is the process where a solid turns directly into a gas without becoming a liquid. Examples include dry ice (solid CO_2) and iodine crystals.
 - Other processes:
 - **Condensation:** Gas to liquid.
 - **Vaporization:** Liquid to gas.
 - **Deposition:** Gas to solid.
- Reference:** Physical Chemistry by P.W. Atkins, 11th Edition, Page 87.
-

22. The pH scale ----- drug indicates:

Correct Answer: (a) Neutral

Explanation:

- A **pH of 7** is **neutral**, meaning the concentration of hydrogen ions (H^+) equals hydroxide ions (OH^-). Pure water has a pH of 7.
 - Other options:
 - **Acidic:** $\text{pH} < 7$.
 - **Basic/Alkaline:** $\text{pH} > 7$.
- Reference:** General Chemistry by Linus Pauling, 3rd Edition, Page 305.
-

23. What is the ----- acid and base?

Correct Answer: (d) Amphoteric

Explanation:

- **Amphoteric substances** can react as both acids and bases. For example, water (H_2O) can donate a proton (acid) or accept a proton (base).
 - Other options:
 - **Salt:** Product of acid-base neutralization.
 - **Amphiphile:** Molecules with hydrophilic and hydrophobic parts.
- Reference:** Organic Chemistry by Paula Yurkanis Bruice, 8th Edition, Page 356.
-

24. A substance that ----- process is called:

Correct Answer: (a) Catalyst

Explanation:

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- A **catalyst** lowers the activation energy of a reaction, increasing its rate without undergoing permanent chemical change.
 - Other options:
 - **Reactant:** Participates in the reaction.
 - **Product:** Formed by the reaction.
 - **Inhibitor:** Slows down a reaction.**Reference:** Chemistry: The Central Science by Brown, LeMay, 15th Edition, Page 451.
-

25. Which of ----- noble gas?

Correct Answer: (c) Helium (He)

Explanation:

- **Noble gases** are elements in Group 18 of the periodic table and are chemically inert. Examples include **Helium (He), Neon (Ne), and Argon (Ar)**.
 - Other options:
 - **Nitrogen, Oxygen, and Chlorine:** Not noble gases, belong to other groups.**Reference:** Modern Inorganic Chemistry by Cotton and Wilkinson, 6th Edition, Page 103.
-

26. What is the ----- Sulphuric acid?

Correct Answer: (a) H₂SO₄

Explanation:

- **Sulphuric acid** has the formula **H₂SO₄**, a strong mineral acid widely used in industrial processes.
 - Other options:
 - **H₂SO₃:** Sulphurous acid.
 - **H₂S:** Hydrogen sulfide.
 - **SO₂:** Sulphur dioxide.**Reference:** General Chemistry by Linus Pauling, 3rd Edition, Page 421.
-

27. What is the ----- formula of methane?

Correct Answer: (d) CH₄

Explanation:

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- **Methane** is the simplest alkane with the molecular formula CH_4 , consisting of one carbon atom and four hydrogen atoms.
 - Other options:
 - **CH, CH₂, CH₃**: Incorrect formulas for methane.
- Reference:** Organic Chemistry by Paula Yurkanis Bruice, 8th Edition, Page 101.
-

28. What is the ----- element gold?

Correct Answer: (b) Au

Explanation:

- The symbol **Au** is derived from the Latin word "**Aurum**," meaning gold.
 - Other options:
 - **Gd**: Gadolinium.
 - **Ag**: Silver.
 - **Fe**: Iron.
- Reference:** Periodic Table of Elements, International Union of Pure and Applied Chemistry (IUPAC).
-

29. What is the ----- medicinal plants?

Correct Answer: (d) Astringent properties

Explanation:

- **Tannins** have **astringent properties**, which cause protein precipitation, making them useful in treating wounds and diarrhea. They also exhibit **antibacterial** and **antioxidant** activities but are primarily astringent.
- Reference:** Pharmacognosy by Trease and Evans, 16th Edition, Page 143.
-

30. Which alkaloid is ----- treatment of malaria?

Correct Answer: (a) Quinine

Explanation:

- **Quinine** is a natural alkaloid obtained from the **Cinchona tree** bark and is used for treating **malaria**.
- Other options:

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- **Morphine, Atropine, and Codeine:** Derived from other sources and used for different purposes.

Reference: Essentials of Pharmacognosy by Kokate, 6th Edition, Page 235.

31. What is the ----- down anaerobically?

Correct Answer: (a) Fermentation

Explanation:

- **Fermentation** is an anaerobic process in which glucose is broken down to produce energy, along with by-products like ethanol, lactic acid, or gases.
- Other options:
 - **Decoction and infusion:** Methods of extraction.
 - **Extraction:** General term for obtaining substances from a matrix.

Reference: Lehninger Principles of Biochemistry, 7th Edition, Page 540.

32. What is the ----- from natural sources?

Correct Answer: (b) Pharmacognosy

Explanation:

- **Pharmacognosy** deals with the study of drugs derived from natural sources like plants, animals, and minerals.
- Other options:
 - **Pharmacology:** Study of drug action on living organisms.
 - **Pharmaceutics:** Focuses on drug formulation.
 - **Pharmacy:** Broader field covering all aspects of drugs.

Reference: Pharmacognosy by Trease and Evans, 16th Edition, Page 1.

33. Which plant----- antimicrobial properties?

Correct Answer: (c) Vanillin

Explanation:

- **Vanillin**, derived from **Vanilla beans**, is widely used as a flavoring agent and possesses mild antimicrobial properties.
- Other options:
 - **Quinine:** Used to treat malaria.

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- **Capsaicin:** Found in chili peppers.
 - **Curcumin:** Found in turmeric with anti-inflammatory properties.
- Reference:** Essentials of Pharmacognosy by Kokate, 6th Edition, Page 320.
-

34. What is the ----- in plant leaves?

Correct Answer: (b) Gas exchange

Explanation:

- **Stomata** are small openings on leaves that regulate the exchange of gases (CO₂, O₂) and water vapor during photosynthesis and transpiration.
 - Other options:
 - **Water transport and nutrient absorption:** Occur via xylem and roots.
 - **Mechanical support:** Provided by structural tissues.
- Reference:** Botany for Degree Students by B.P. Pandey, 14th Edition, Page 201.
-

35. What class ----- natural dyes?

Correct Answer: (c) Flavonoids

Explanation:

- **Flavonoids** are pigments responsible for the yellow, red, and blue colors in plants and are used as natural dyes and antioxidants.
 - Other options:
 - **Alkaloids, Tannins, and Glycosides:** Do not significantly contribute to plant colors.
- Reference:** Pharmacognosy by Trease and Evans, 16th Edition, Page 123.
-

36. What is the ----- pharmaceutical formulations:

Correct Answer: (c) Flavoring agents

Explanation:

- **Flavoring agents** are added to pharmaceutical formulations to mask unpleasant tastes, making them more palatable, especially for children.
- Other options:
 - **Emulsifiers:** Stabilize emulsions.
 - **Demulcents:** Soothe irritated tissues.

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- **Preservatives:** Prevent microbial growth.
Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1258.

37. What is the ----- (*Papaver somniferous*)?

Correct Answer: (b) Morphine

Explanation:

- **Morphine** is the principal alkaloid in the opium poppy, used for pain management.
 - Other options:
 - **Nicotine:** Found in tobacco.
 - **Atropine:** Found in *Atropa belladonna*.
 - **Quinine:** Found in *Cinchona*.
- Reference:** Essentials of Pharmacognosy by Kokate, 6th Edition, Page 278.

38. The term ----- refers to:

Correct Answer: (b) Herbal drugs

Explanation:

- **Phytopharmaceuticals** are drugs derived from plant sources with therapeutic properties.
 - Other options:
 - **Synthetic drugs:** Not plant-derived.
 - **Microbial drugs:** Obtained from microbes.
 - **Biotechnologically produced drugs:** Include recombinant proteins.
- Reference:** Pharmacognosy by Trease and Evans, 16th Edition, Page 30.

39. What is the ----- management of asthma?

Correct Answer: (b) Assessing lung function

Explanation:

- A **peak flow meter** measures the maximum speed of air exhaled from the lungs, helping monitor asthma control.
- Other options:
 - **Blood glucose levels, blood pressure, and kidney function:** Irrelevant to asthma management.

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Reference: Essentials of Respiratory Care by White and Phalen, 7th Edition, Page 192.

40. What is the ----- medications in healthcare?

Correct Answer: (b) Preventing blood clot formation

Explanation:

- **Anticoagulants** (e.g., warfarin, heparin) prevent the formation of blood clots, reducing the risk of conditions like stroke and deep vein thrombosis.
- Other options:
 - **Lowering blood pressure:** Managed by antihypertensives.
 - **Relieving pain:** Managed by analgesics.
 - **Promoting sleep:** Managed by sedatives.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 948.

41. What is the ----- sales representative?

Correct Answer: (b) To promote and sell pharmaceutical products to healthcare professionals

Explanation:

- Pharmaceutical sales representatives educate and persuade healthcare professionals about the benefits, uses, and risks of their company's pharmaceutical products to drive sales.
- Other options:
 - **Dispensing medications:** Handled by pharmacists.
 - **Conducting clinical trials and regulating drug prices:** Managed by researchers and regulatory authorities.

Reference: Pharmaceutical Marketing: Principles, Environment, and Practice by Mickey C. Smith, 2nd Edition, Page 42.

42. What is ----- filters the blood?

Correct Answer: (b) Kidneys

Explanation:

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- The **kidneys** filter waste products, excess salts, and toxins from the blood, forming urine for excretion.
 - Other options:
 - **Liver:** Detoxifies chemicals but does not filter blood in the same way.
 - **Pancreas and spleen:** Serve other specialized roles in digestion and immunity.**Reference:** Human Physiology by Stuart Ira Fox, 15th Edition, Page 689.
-

43. What is the -----antiemetic medication?

Correct Answer: (c) Prevention of vomiting

Explanation:

- **Antiemetics** prevent or reduce nausea and vomiting caused by conditions like motion sickness, chemotherapy, or postoperative recovery.
 - Other options:
 - **Pain relief and anti-inflammatory action:** Managed by analgesics and NSAIDs.
 - **Blood pressure regulation:** Managed by antihypertensives.**Reference:** Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 657.
-

44. In the context ----- "topical" refer to?

Correct Answer: (b) Medications applied to the skin or mucous membranes

Explanation:

- **Topical** administration involves applying medications directly to the skin or mucous membranes for localized effect (e.g., creams, ointments).
 - Other options:
 - **Oral, injectable, and inhaled:** Refer to systemic routes of administration.**Reference:** Pharmaceutics by Aulton, 5th Edition, Page 362.
-

45. Which of the -----soluble vitamin?

Correct Answer: (b) Vitamin C

Explanation:

- **Vitamin C** is water-soluble, as are all B-complex vitamins. It dissolves in water and is not stored in the body.

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- Other options:
 - **Vitamins A, D, and E:** Fat-soluble, stored in fatty tissues.
Reference: Harper's Illustrated Biochemistry, 31st Edition, Page 295.
-

46. A complete ----- blood components?

Correct Answer: (b) Hemoglobin and hematocrit

Explanation:

- A **CBC test** evaluates components like **hemoglobin, hematocrit, red blood cells (RBCs), white blood cells (WBCs), and platelets.**
 - Other options:
 - **Glucose and cholesterol:** Checked in metabolic panels.
 - **Enzymes, hormones, electrolytes, and antibodies:** Not measured in CBC.
Reference: Clinical Hematology by Rodak et al., 5th Edition, Page 101.
-

47. What is the ----- deciliter (mg/dL)?

Correct Answer: (b) 70-99 mg/dL

Explanation:

- Normal **fasting blood glucose levels** range from **70-99 mg/dL.** Levels above 126 mg/dL indicate diabetes.
Reference: Harrison's Principles of Internal Medicine, 20th Edition, Page 2927.
-

48. Which pharmaceutical ----- particle segregation?

Correct Answer: (a) Granulation

Explanation:

- **Granulation** improves particle uniformity and reduces segregation during tablet formulation by binding smaller particles into larger, more uniform granules.
 - Other options:
 - **Filtration, vacuum drying, and boiling:** Do not address particle segregation.
Reference: Pharmaceutics by Aulton, 5th Edition, Page 396.
-

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49. Paracetamol is ----- example of:

Correct Answer: (a) Active Pharmaceutical Ingredients (API)

Explanation:

- **Paracetamol** is the **API** in various formulations used for pain relief and fever reduction.
 - Other options:
 - **Diluent, binder, and lubricant:** Excipients used in formulation.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 218.
-

50. In India, ----- context of healthcare?

Correct Answer: (c) Ayurveda, Yoga, Unani, Siddha, and Homeopathy

Explanation:

- **AYUSH** represents traditional and alternative healthcare systems in India, including **Ayurveda, Yoga, Unani, Siddha, and Homeopathy.**
Reference: National Health Mission, Ministry of AYUSH, Government of India Documentation.
-

51. Which vitamin ----- known as scurvy?

Correct Answer: (c) Vitamin C

Explanation:

- **Scurvy** is caused by a deficiency of **Vitamin C**, leading to symptoms such as bleeding gums, weakness, and poor wound healing.
 - Other options:
 - **Vitamin A:** Night blindness.
 - **Vitamin B₁:** Beriberi.
 - **Vitamin D:** Rickets.
Reference: Harper's Illustrated Biochemistry, 31st Edition, Page 307.
-

52. Which vitamin ----- night blindness?

Correct Answer: (c) Vitamin A

Explanation:

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- **Night blindness** occurs due to **Vitamin A deficiency**, which impairs the production of rhodopsin, a pigment needed for low-light vision.
 - Other options:
 - **Vitamin B₁ and B₂**: Neurological and skin conditions.
 - **Vitamin D**: Bone-related disorders.**Reference:** Essentials of Medical Biochemistry by Lieberman et al., 4th Edition, Page 123.
-

53. Which of the ----- size reduction?

Correct Answer: (d) Radiation

Explanation:

- **Size reduction** involves principles like **impact, attrition, and cutting** to reduce particle size. Radiation does not play a role in this process.
- Reference:**
- Pharmaceutics by Aulton, 5th Edition, Page 275.

54. Honey is ----- source of:

Correct Answer: (c) Fructose

Explanation:

- **Honey** primarily contains **fructose**, along with glucose and small amounts of other sugars. It is a natural sweetener with antimicrobial properties.
 - Other options:
 - **Curcumin, phenytoin, albendazole**: Not components of honey.**Reference:** Essentials of Food Science by Vickie A. Vaclavik, 5th Edition, Page 221.
-

55. Which of ----- sterilization?

Correct Answer: (d) Cold water sterilization

Explanation:

- **Cold water sterilization** is not a recognized sterilization method.
- Common sterilization methods include:

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- **Dry heat, moist heat, and ethylene oxide sterilization.**

Reference: Pharmaceutical Microbiology by Hugo and Russell, 8th Edition, Page 112.

56. Which mosquito ----- parasite to humans?

Correct Answer: (b) Anopheles mosquito

Explanation:

- **Anopheles mosquitoes** are the primary vectors for transmitting the **Plasmodium parasite**, which causes malaria in humans.
- Other options:
 - **Aedes mosquitoes:** Transmit dengue and Zika viruses.
 - **Culex mosquitoes:** Transmit filariasis and West Nile virus.
 - **Toxorhynchites mosquitoes:** Non-biting mosquitoes.

Reference: Parasitology by Chatterjee, 13th Edition, Page 215.

57. Which of the -----pharmacy setting?

Correct Answer: (b) Providing medical diagnoses

Explanation:

- Pharmacists do not diagnose medical conditions; this is the role of licensed physicians.
- Their roles include:
 - **Dispensing medications.**
 - **Counseling patients.**
 - **Monitoring for drug interactions.**

Reference: Pharmacy Practice by Winfield and Richards, 3rd Edition, Page 121.

58. Hyperglycemia ----- means:

Correct Answer: (c) Higher blood sugar levels

Explanation:

- **Hyperglycemia** refers to elevated blood glucose levels, commonly seen in diabetes.
- Other options:
 - **Minimal and lower blood sugar levels:** Refer to hypoglycemia.

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- **Normal blood sugar levels:** Not hyperglycemia.
Reference: Harrison's Principles of Internal Medicine, 20th Edition, Page 2947.

59. India is known -----generic drugs?

Correct Answer: (c) They are more affordable alternatives to brand-name drugs

Explanation:

- **Generic drugs** contain the same active ingredients as brand-name drugs but are sold at lower prices due to reduced development and marketing costs.
- Other options:
 - **More expensive and shorter shelf life:** Incorrect.
 - **Not subject to regulatory approval:** False; generics undergo strict regulatory evaluation.
Reference: Essentials of Pharmaceutical Marketing by Mickey C. Smith, 2nd Edition, Page 105.

60. Which of the ----- 'Bad cholesterol'?

Correct Answer: (a) LDL (Low-Density Lipoprotein)

Explanation:

- **LDL** is referred to as "bad cholesterol" because high levels can lead to plaque buildup in arteries, increasing the risk of heart disease.
- Other options:
 - **HDL:** Known as "good cholesterol."
 - **Platelets and chylomicrons:** Not forms of cholesterol.
Reference: Biochemistry by Berg, Tymoczko, and Stryer, 7th Edition, Page 255.

61. Which of the ----- attenuated vaccine?

Correct Answer: (a) Typhoid vaccine

Explanation:

- **Typhoid vaccine (Ty21a)** is a live attenuated vaccine used to provide immunity against *Salmonella typhi*.
- Other options:

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- **Polio, yellow fever, and smallpox vaccines** are live attenuated, but they are **viral vaccines**.

Reference: Vaccines by Plotkin et al., 7th Edition, Page 345.

62. Decimal reduction ----- given temperature.

Correct Answer: (c) Thermal death time

Explanation:

- **Decimal reduction time (D-value):** This term specifically refers to the time required to reduce the microbial population by 90% (one log) at a specific temperature. It's a crucial concept in understanding the effectiveness of heat treatments used in food processing and sterilization.
 - **Thermal death point:** This is the lowest temperature at which all microorganisms in a particular liquid culture are killed within 10 minutes.
 - **Thermal death time:** This is the shortest period of time required to kill all microorganisms in a particular liquid culture at a specified temperature.
 - **Decimal death time:** This term is not a standard microbiological term.
- Reference:** Principles of Microbiology by Pelczar, 5th Edition, Page 67.
-

63. In the imperial ----- is known as:

Correct Answer: (b) 1 minim

Explanation:

- **1 minim** is the smallest liquid unit in the imperial system, approximately equal to **1 drop** or **0.06 milliliters**.
 - Other options:
 - **Fluid drachm, fluid ounce, and scruple** are larger units.
- Reference:** Pharmaceutical Calculations by Ansel, 15th Edition, Page 23.
-

64. Meta Filter ----- type of filter:

Correct Answer: (c) Pressure

Explanation:

- **Meta filters** are **pressure filters** used in liquid filtration systems for efficient separation of impurities.

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- Other types:
 - **Vacuum filters:** Use suction.
 - **Gravity filters:** Operate under gravity.
 - **Partition filters:** Separate phases based on solubility or density.
Reference: Pharmaceutical Engineering by K.S. Subramanian, 4th Edition, Page 412.
-

65. Which of the ----- during manufacture?

Correct Answer: (b) Hardness and friability

Explanation:

- **Hardness and friability tests** assess a tablet's ability to withstand mechanical shocks during manufacturing, packaging, and transportation.
 - Other options:
 - **Unique identification marking:** For identification.
 - **Disintegration and weight variation:** Evaluate performance and uniformity.
Reference: Pharmaceutics by Aulton, 5th Edition, Page 562.
-

66. Which of the ----- process of sterilization?

Correct Answer: (a) Gas sterilisation

Explanation:

- **Gas sterilization** (e.g., ethylene oxide or formaldehyde gas) is a chemical process used to sterilize heat-sensitive materials.
 - Other options:
 - **Moist heat sterilisation:** Uses steam under pressure.
 - **Dry heat sterilisation:** Uses high temperatures.
 - **Ionising radiations:** Use radiation, not chemicals.
Reference: Pharmaceutical Microbiology by Hugo and Russell, 8th Edition, Page 134.
-

67. Polyethylene materials ----- packaging materials.

Correct Answer: (a) Plastic

Explanation:

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- **Polyethylene** is a versatile plastic material used for making bottles, containers, and films in packaging.
 - Other options:
 - **Metal, glass, and rubber:** Different materials not associated with polyethylene.
Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1220.
-

68. The brownish ----- formation corresponding:

Correct Answer: (b) Sulphides

Explanation:

- **Sulphides** are formed when heavy metals react with **sodium sulfide** in the test, producing a characteristic brown or black color.
 - Other options:
 - **Mercaptans, thioglycolate, and arsenates:** Not involved in this reaction.
Reference: Indian Pharmacopoeia, 2022, Volume 1, Page 317.
-

69. Which of the ----- immiscible liquids?

Correct Answer: (b) Emulsions

Explanation:

- **Emulsions** are mixtures of two immiscible liquids (e.g., oil and water), stabilized using emulsifying agents.
 - Other options:
 - **Linctuses:** Thick syrups for oral use.
 - **Pastes:** Semi-solid formulations.
 - **Sachets:** Contain powders or granules.
Reference: Pharmaceutics by Aulton, 5th Edition, Page 495.
-

70. Weight in ----- solutions have:

Correct Answer: (a) One part by weight of solute in 100 parts by volume of solvent

Explanation:

- **Weight/volume (w/v)** solutions are prepared by dissolving one gram of solute in 100 mL of solvent.

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- Other options describe incorrect units for preparation.
Reference: Pharmaceutical Calculations by Ansel, 15th Edition, Page 44.

71. The long-acting ----- are known as:

Correct Answer: (d) Implants

Explanation:

- **Implants** are small, sterile dosage forms placed subcutaneously, providing sustained release of the drug for extended periods.
- Other options:
 - **Gums, inserts, and gels:** Not designed for such long-acting release.
Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 870.

72. Fine dry divided ----- body cavity are:

Correct Answer: (a) Insufflated powders

Explanation:

- **Insufflated powders** are fine powders delivered into body cavities (e.g., nasal or throat) using an insufflator.
- Other options:
 - **Bulk powders and divided powders:** Not specifically for body cavities.
 - **Effervescent powders:** Release gas when dissolved in water.
Reference: Aulton's Pharmaceutics, 5th Edition, Page 452.

73. arithmetical method ----- percentage strengths:

Correct Answer: (c) Allegation

Explanation:

- **Allegation** is a method used to calculate the proportion of different concentrations of solutions or solids to achieve a desired concentration.
- Other options:
 - **Aggregation and combination:** General terms, not specific to this process.
 - **Permutation:** Not relevant here.
Reference: Pharmaceutical Calculations by Ansel, 15th Edition, Page 91.

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74. Which of the ----- distillation process:

Correct Answer: (b) The particle size should be small which enables better absorption and partitioning

Explanation:

- **Molecular distillation** involves:
 - **Evaporating surface close to the condensing surface.**
 - **Very high vacuum to reduce boiling points.**
 - **Large liquid area for efficient evaporation.**
- Particle size is not a relevant factor.

Reference: Industrial Pharmacy by Lachman, 4th Edition, Page 357.

75. The method of ----- is termed as:

Correct Answer: (c) Attrition method

Explanation:

- **Attrition** refers to the process of wearing down or grinding something into smaller pieces by friction or abrasion. This is precisely what happens when you use a mortar and pestle – the material is ground down by the rubbing action between the pestle and the mortar.
- **Impact method:** This involves striking or colliding the material with a surface to break it down.
- **Compression method:** This involves applying pressure to the material to crush or squeeze it.
- **Cutting method:** This involves using blades or other sharp objects to cut the material into smaller pieces.

Reference: Pharmaceutical Engineering by Subramanian, 4th Edition, Page 78.

76. Which key is ----- most browsers?

Correct Answer: (d) Both (b) and (c)

Explanation:

- Pressing **F5** or **Ctrl + R** refreshes the current web page in most web browsers.
- Other options:

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- **F2:** Used to rename files.
Reference: Standard Keyboard Shortcuts in Web Browsers.
-

77. Which of the ----- an operating system?

Correct Answer: (b) Windows

Explanation:

- **Windows** is a widely used operating system managing hardware and software resources.
 - Other options:
 - **Chrome and Bing:** Web browser and search engine, respectively.
 - **Google:** Search engine and service provider.
Reference: Operating System Concepts by Silberschatz et al., 10th Edition, Page 25.
-

78. What does ----- in networking?

Correct Answer: (c) Domain Name System

Explanation:

- **DNS** translates domain names (e.g., www.google.com) into IP addresses used by computers to locate resources.
 - Other options:
 - **Domain Name Server:** Incorrect term.
Reference: Computer Networks by Andrew S. Tanenbaum, 6th Edition, Page 105.
-

79. The file ----- plain text

Correct Answer: (b) .txt

Explanation:

- **.txt** is the standard extension for plain text files without any formatting.
- Other options:
 - **.docx and .xlsx:** Microsoft Word and Excel files.
 - **.pdf:** Portable Document Format.
Reference: Guide to File Formats and Extensions.

80. Which of the ----- email communication?

Correct Answer: (b) Thunderbird

Explanation:

- **Thunderbird** is an email client used to send and receive emails.
 - Other options:
 - **Adobe Acrobat:** PDF management.
 - **VLC Media Player:** Media playback.
 - **Google Drive:** Cloud storage.
- Reference:** Official Documentation of Thunderbird by Mozilla.

81. A train 150 ----- meters long?

Correct Answer: (b) 25 seconds

Explanation:

1. Convert speed to meters per second:

- $54 \text{ km/h} = (54 * 1000) \text{ meters} / (60 * 60) \text{ seconds}$
- $54 \text{ km/h} = 15 \text{ meters/second}$

2. Calculate the total distance:

- Total distance = Length of train + Length of platform
- Total distance = 150 meters + 200 meters
- Total distance = 350 meters

3. Calculate the time taken:

- Time = Distance / Speed
- Time = 350 meters / 15 meters/second
- Time = 23.33 seconds

Therefore, the train will take approximately 23.33 seconds to cross the platform.

82. If the difference ----- sum of money?

Correct Answer: (d) ₹5000

Explanation:

Formulae:

- **Simple Interest (SI):** $SI = (P * R * T) / 100$
- **Compound Interest (CI):** $CI = P * (1 + R/100)^T - P$

Where:

- P = Principal amount

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- R = Rate of interest per annum
- T = Time period in years

Given:

- Difference between CI and SI = ₹50
- Rate of interest (R) = 10% per annum
- Time period (T) = 2 years

Let's derive the equation to find the principal amount (P):

1. **Calculate Simple Interest (SI):** $SI = (P * 10 * 2) / 100 = 0.2P$
2. **Calculate Compound Interest (CI):** $CI = P * (1 + 10/100)^2 - P = P * (1.1)^2 - P = 0.21P$
3. **Difference between CI and SI:** $CI - SI = 0.21P - 0.2P = 0.01P$

Given that the difference is ₹50: $0.01P = 50$

Solving for P: $P = 50 / 0.01$ $P = ₹5000$

Therefore, the sum of money is ₹5000.

83. A farmer sold ----- gain loss percentage?

Correct Answer: (a) 4% loss

Explanation:

1. Find the cost price of the first cow (20% gain):

- Let the cost price of the first cow be 'x'.
- Selling price = Cost price + Profit
- $30,000 = x + (20/100)x$
- $30,000 = 1.2x$
- $x = 30,000 / 1.2$
- $x = 25,000$

2. Find the cost price of the second cow (20% loss):

- Let the cost price of the second cow be 'y'.
- Selling price = Cost price - Loss
- $30,000 = y - (20/100)y$
- $30,000 = 0.8y$
- $y = 30,000 / 0.8$
- $y = 37,500$

3. Calculate the total cost price:

- Total cost price = Cost price of first cow + Cost price of second cow
- Total cost price = $25,000 + 37,500$
- Total cost price = $62,500$

4. Calculate the total selling price:

- Total selling price = Selling price of first cow + Selling price of second cow
- Total selling price = $30,000 + 30,000$
- Total selling price = $60,000$

5. Calculate the overall loss:

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- Overall loss = Total cost price - Total selling price
- Overall loss = 62,500 - 60,000
- Overall loss = 2,500

6. Calculate the overall loss percentage:

- Loss percentage = (Overall loss / Total cost price) * 100
- Loss percentage = (2,500 / 62,500) * 100
- Loss percentage = 4%

Therefore, the farmer's overall loss percentage is 4%.

84. A person walks -----his average speed?

Correct Answer: (b) 6.5 km/h

Explanation:

1. Calculate the total time taken:

- Time taken for the first part = Distance / Speed = 2 km / 4 km/h = 0.5 hours
- Time taken for the second part = Distance / Speed = 3 km / 6 km/h = 0.5 hours
- Time taken for the third part = Distance / Speed = 5 km / 10 km/h = 0.5 hours
- Total time taken = 0.5 hours + 0.5 hours + 0.5 hours = 1.5 hours

2. Calculate the total distance covered:

- Total distance = 2 km + 3 km + 5 km = 10 km

3. Calculate the average speed:

- Average speed = Total distance / Total time
- Average speed = 10 km / 1.5 hours
- Average speed = 6.67 km/h

Therefore, the person's average speed is 6.67 km/h.

The closest answer choice is (b) 6.5 km/h.

85. A can task ----- complete the task?

Correct Answer: (d) 6.85 days

Explanation:

1. Find the combined work per day:

- A can complete the task in 12 days, so A's work per day = 1/12
- B can complete the task in 16 days, so B's work per day = 1/16
- Combined work per day = 1/12 + 1/16 = (4 + 3) / 48 = 7/48

2. Calculate the number of days to complete the task together:

- Number of days = 1 / (Combined work per day)
- Number of days = 1 / (7/48)
- Number of days = 48/7
- Number of days = 6.857 days (approximately)

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Therefore, if A and B work together, they will take approximately 6.86 days to complete the task.

86. What comes ----- the series

Correct Answer: (b) 27

Explanation:

1. Find the pattern:

- The differences between consecutive numbers are increasing by 1:
 - $3 - 2 = 1$
 - $6 - 3 = 3$
 - $11 - 6 = 5$
 - $18 - 11 = 7$

2. Continue the pattern:

- The next difference should be 9.

3. Find the next number:

- $18 + 9 = 27$
-

87. If in a certain ----- is "MIND" coded?

Correct Answer: (a) NJOE

Explanation:

1. Analyze the code:

- In the given code, each letter in the word "BRAIN" is shifted one place forward in the alphabet.
 - $B \rightarrow C, R \rightarrow S, A \rightarrow B, I \rightarrow J, N \rightarrow O$

2. Apply the code to "MIND":

- $M \rightarrow N, I \rightarrow J, N \rightarrow O, D \rightarrow E$

Therefore, "MIND" is coded as "NJOE".

88. Pointing to ----- related the man?

Correct Answer: (a) Sister

Explanation:

- "His mother's only daughter is my mother" means the man and Seema share the same mother.
Seema is the man's sister.

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89. Find the odd ----- Table, Bench, Chalk.

Correct Answer: (d) Chalk

Explanation:

- Chair, Table, and Bench are furniture items, while Chalk is not.
-

90. What comes ----- the series

Correct Answer: (c) 36

Explanation:

- The series represents the squares of consecutive integers:
 $1^2, 2^2, 3^2, 4^2, 5^2, \dots$
 - Next term: $6^2 = 36$.
-

91. The 'Doctrine ----- landmark case?

Correct Answer: (b) Kesavananda Bharati Case

Explanation:

- In the **Kesavananda Bharati Case (1973)**, the Supreme Court ruled that the Parliament can amend the Constitution but cannot alter its **basic structure**.
 - Other cases:
 - **Golaknath Case (1967)**: Denied Parliament's power to amend fundamental rights.
 - **Minerva Mills Case (1980)**: Strengthened the doctrine.
 - **S.R. Bommai Case (1994)**: Related to state emergencies and federalism.
-

92. Which Indian ----- number of dams?

Correct Answer: (a) Maharashtra

Explanation:

- Maharashtra has the highest number of dams, followed by Madhya Pradesh and Gujarat.
- Maharashtra has significant dam projects like **Koyna Dam** and **Jayakwadi Dam**.

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93. Who among ----- independent India?

Correct Answer: (b) C. Rajagopalachari

Explanation:

- **C. Rajagopalachari** succeeded Lord Mountbatten as the first Indian Governor-General of independent India in 1948.
 - Other options:
 - **Lord Mountbatten:** Last British Governor-General.
 - **Dr. Rajendra Prasad:** First President of India.
-

94. The 'Operation ----- which sector?

Correct Answer: (b) Dairy

Explanation:

- **Operation Flood**, initiated by the **National Dairy Development Board (NDDB)**, revolutionized milk production in India, making it the largest producer of milk in the world.
 - It was called the **White Revolution** and led by **Verghese Kurien**.
-

95. Which state ----- Bowl of India'?

Correct Answer: (c) Andhra Pradesh

Explanation:

- Andhra Pradesh earned the title due to its high rice production, supported by major river systems like the **Krishna** and **Godavari**.
 - Other contenders:
 - **Punjab and West Bengal:** Significant rice producers but not referred to as the "Rice Bowl."
-

96. The famous ----- which movement?

Correct Answer: (b) Civil Disobedience Movement

Explanation:

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- The **Dandi March (1930)**, led by Mahatma Gandhi, was part of the **Civil Disobedience Movement** aimed at opposing the British salt monopoly and unjust taxation.
 - Other options:
 - **Non-Cooperation Movement (1920-22)**: Boycott of British goods.
 - **Quit India Movement (1942)**: Call for complete independence.
 - **Swadeshi Movement (1905)**: Boycott of foreign goods.
-

97. The National ----- which year?

Correct Answer: (c) 2013

Explanation:

- The **NFSA, 2013**, provides subsidized food grains to approximately two-thirds of India's population under the Public Distribution System (PDS).

Reference: Official Gazette of India, NFSA 2013.

98. The Indus -----which organization?

Correct Answer: (b) World Bank

Explanation:

- The **Indus Waters Treaty (1960)**, mediated by the **World Bank**, allocated the use of the Indus River and its tributaries between India and Pakistan.
-

99. The Fundamental ----- Indian Constitution?

Correct Answer: (b) Part III

Explanation:

- **Part III (Articles 12-35)** of the Indian Constitution enshrines Fundamental Rights, ensuring equality, freedom, and protection against exploitation.
 - Other parts:
 - **Part II**: Citizenship.
 - **Part IV**: Directive Principles of State Policy.
-

100. Who led ----- Rebellion?

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Correct Answer: (a) Sidhu and Kanhu Murmu

Explanation:

- The **Santhal Rebellion (1855-56)** was led by **Sidhu and Kanhu Murmu** against exploitative landlords, moneylenders, and British authorities in the Bengal Presidency.
- Other leaders:
 - **Birsa Munda:** Leader of the Munda Rebellion.
 - **Tantia Bhil:** Leader of the Bhil Revolt.
 - **Rani Gaidinliu:** Leader of the Zeliangrong movement.



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