

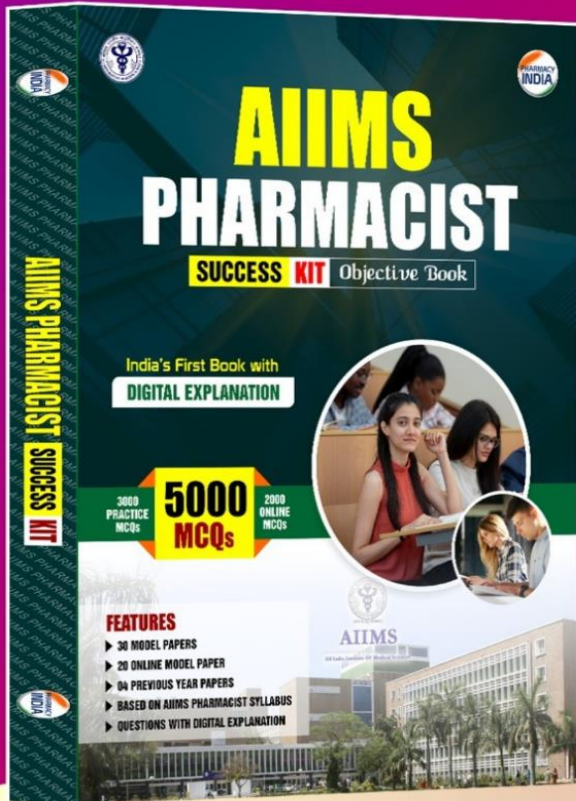


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1. Punarnava ----- constituent:

Correct Answer: (b) Phenolic glycoside

Explanation:

- **Punarnava** (*Boerhavia diffusa*) is a medicinal plant known to contain **phenolic glycosides** as its primary chemical constituent, along with alkaloids and flavonoids.
- Other options like mucilage, terpene, and vitamins are not major constituents of Punarnava.

Reference: Pharmacognosy by C.K. Kokate, 53rd Edition, Page 250.

2. The study of ----- known as:

Correct Answer: (a) Organoleptic evaluation

Explanation:

- **Organoleptic evaluation** involves using **senses** such as sight, smell, taste, and touch to assess drugs.
- Examples: Assessing color, texture, and odor of raw drugs.

Reference: Trease and Evans' Pharmacognosy, 16th Edition, Page 150.

3. The pharmacopoeial stand-----specific for:

Correct Answer: (c) Gelatin

Explanation:

- **Gelatin**, used in pharmaceuticals (e.g., capsules), must meet stringent microbial limits to ensure safety and stability.
- Other excipients like silica, starch, and tragacanth have different microbial standards.

Reference: Indian Pharmacopoeia, 2022 Edition, Volume II, Page 1245.

4. Which of ----- group?

Correct Answer: (d) Serine

Explanation:

- **Serine** has a hydroxyl (-OH) group in its side chain, making it polar and hydrophilic.
- Other options:

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- **Valine and Leucine:** Contain nonpolar, aliphatic side chains.
 - **Glycine:** Simplest amino acid with only a hydrogen side chain.
- Reference:** Biochemistry by Lehninger, 7th Edition, Page 114.

5. Which of the ----- ion?

Correct Answer: (d) Magnesium

Explanation:

ELECTROLYTES

Substance when dissolved in solution separates into ions & is able to carry an electrical current.

- **Cation** - positively charged electrolyte (e.g. Ca^+)
- **Anion** - negatively charged electrolyte (e.g. Cl^-)

No of Cations must equal the no of Anions for homeostasis to exist in each fluid compartment.

ELECTROLYTES IN BODY FLUID COMPARTMENTS:

- **Intracellular:** K, Mg, P
- **Extracellular:** Na, Cl, HCO_3

Reference: Guyton and Hall Textbook of Medical Physiology, 14th Edition, Page 370.

6. When ferric -----corresponding:

Correct Answer: (a) Ferric thiocyanate

Explanation:

- The **red color** is due to the formation of **ferric thiocyanate** (Fe(SCN)_3), a complex formed when ferric salts react with ammonium thiocyanate in solution.
- Other options involve compounds unrelated to this reaction.

Reference: Vogel's Textbook of Quantitative Chemical Analysis, 6th Edition, Page 354.

7. Indian ----- known as:

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Correct Answer: (d) Cassia angustifolia

Explanation:

- **Indian senna** comes from **Cassia angustifolia**, widely used for its laxative properties due to sennosides.
- Other species listed (e.g., *Digitalis purpurea*, *Erythroxylum coca*) have unrelated medicinal uses.

Reference: Pharmacognosy by C.K. Kokate, 53rd Edition, Page 272.

8. Wool grease, ----- known as:

Correct Answer: (a) Lanolin

Explanation:

- **Lanolin**, derived from purified wool grease, is a valuable natural wax used in pharmaceutical and cosmetic products as an emollient.
- Other options:
 - **Ambergris:** Derived from sperm whales.
 - **Shellac:** Resin secreted by lac insects.
 - **Tallow:** Rendered animal fat.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1445.

9. On reaction ----- produces _____ colour:

Correct Answer: (b) Yellow

Explanation:

- **Calcium gluconate** reacts with ferric chloride to produce a **yellow-colored complex**.
- Other colors (green, blue, red) are associated with different compounds.

Reference: Vogel's Textbook of Quantitative Chemical Analysis, 6th Edition, Page 352.

10. Alcoholic ----- chloride:

Correct Answer: (d) Green

Explanation:

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- **Balsam Tolu** reacts with ferric chloride to form **toluresinoannols**, which produce a **green color**.
 - This reaction is characteristic of phenolic compounds in balsam.
Reference: Pharmacognosy by C.K. Kokate, 53rd Edition, Page 320.
-

11. Potash ----- an:

Correct Answer: (c) Astringent

Explanation:

- **Potash alum** ($KAl(SO_4)_2 \cdot 12H_2O$) is used as an **astringent** due to its ability to constrict tissues and reduce minor bleeding.
 - Other options:
 - **Antacid:** Neutralizes stomach acid.
 - **Acidifying Agent:** Used to adjust pH.
 - **Antidote:** Not applicable.**Reference:** Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1157.
-

12. Oral glucose ----- for:

Correct Answer: (d) Dynamic function

Explanation:

- The **Oral Glucose Tolerance Test (OGTT)** is a **dynamic function test** used to assess the body's ability to metabolize glucose, often used to diagnose diabetes.
 - Other options like **screening** are incorrect as OGTT is diagnostic, not screening.
Reference: Textbook of Medical Physiology by Guyton and Hall, 14th Edition, Page 1067.
-

13. The supplement ----- published in:

Correct Answer: (b) 1960

Explanation:

- The **first edition of the Indian Pharmacopoeia (IP)** was published in **1955**, and its **supplement** was released in **1960** to include updates.
Reference: Indian Pharmacopoeia, 2022 Edition, Introduction Section.

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14. The most ----- agent is:

Correct Answer: (d) Fluoride

Explanation:

- **Fluoride** is the most effective agent in preventing dental caries by strengthening tooth enamel and reducing acid production by oral bacteria.
- Other halides (bromide, chloride, iodide) are not as effective.

Reference: Essentials of Preventive Dentistry by C.M. Marya, 2nd Edition, Page 189.

15. The pH of ----- equation:

Correct Answer: (c) Henderson-Hasselbalch

Explanation:

- The **Henderson-Hasselbalch equation** calculates the pH of a buffer system:

$$\text{pH} = \text{pKa} + \log \frac{[\text{Salt}]}{[\text{Acid}]}$$

- Other equations (Beer-Lambert, Huckels, Arrhenius) are unrelated to buffer systems.

Reference: Biochemistry by Lehninger, 7th Edition, Page 345.

16. The integral ----- is:

Correct Answer: (d) Zinc

Explanation:

- **Zinc** is essential for the structure and storage of insulin. It stabilizes insulin in the pancreas as **zinc-insulin hexamers**.
- Other options like **iron, cobalt, and iodine** are not components of insulin.

Reference: Biochemistry by Lehninger, 7th Edition, Page 480.

17. _____ is the ----- digitoxose:

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Correct Answer: (c) Keller-Kiliani test

Explanation:

- The **Keller-Kiliani test** detects **digitoxose**, a sugar moiety in cardiac glycosides like digitoxin. It produces a blue-green color due to the reaction with ferric chloride and acetic acid.

Reference: Pharmacognosy by C.K. Kokate, 53rd Edition, Page 455.

18. DPT and oral ----- the:

Correct Answer: (b) Sixth week

Explanation:

- The first dose of **DPT (Diphtheria, Pertussis, Tetanus)** and **oral polio vaccine (OPV)** is administered at **6 weeks** of age as part of the routine immunization schedule.

Reference: WHO Immunization Schedule, Online Documentation.

19. Golgi -----the:

Correct Answer: (a) Export of proteins stored in vesicles

Explanation:

- The **Golgi apparatus** modifies, sorts, and packages proteins into vesicles for **export** or delivery to other parts of the cell.
- It does not synthesize proteins (**b**) or produce energy (**c**).

Reference: Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 223.

20. Deep within ----- matter called:

Correct Answer: (b) Corpus callosum

Explanation:

- The **corpus callosum** is a large, white matter structure that connects the left and right cerebral hemispheres, facilitating communication between them.

- Other options:

- **Corpus luteum:** Related to the ovary.
- **Corpus thalamus and striatum:** Different brain regions.

Reference: Gray's Anatomy for Students, 4th Edition, Page 130.

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21. Which of the ----- enzyme:

Correct Answer: (c) Alcohol dehydrogenase

Explanation:

- **Alcohol dehydrogenase** catalyzes the oxidation of ethanol to acetaldehyde, making it an **oxidoreductase enzyme** (EC 1.x.x.x).
 - Other options:
 - **Phosphorylase**: Transferase.
 - **Lipase**: Hydrolase.
 - **Choline esterase**: Hydrolase.
- Reference:** Lehninger Principles of Biochemistry, 7th Edition, Page 178.
-

22. Mitochondria ----- of:

Correct Answer: (b) ATP

Explanation:

- Mitochondria generate **ATP** through oxidative phosphorylation, making them the cell's "**powerhouse.**"
 - Other molecules (NAD, FMN, FAD) are involved in the electron transport chain but are not the primary product.
- Reference:** Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 788.
-

23. Bubonic -----by a:

Correct Answer: (c) Bacterium

Explanation:

- **Bubonic plague** is caused by the bacterium **Yersinia pestis**, transmitted through fleas that infect rodents and humans.
 - Other options:
 - Virus: Incorrect.
 - Protozoa: Incorrect.
 - Fungus: Incorrect.
- Reference:** Microbiology by Prescott et al., 10th Edition, Page 452.
-

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24. The ----- malaria is:

Correct Answer: (c) Mosquito

Explanation:

- **Anopheles mosquitoes** are vectors of the **Plasmodium** species that cause malaria.
- Other arthropods listed:
 - **Rat flea:** Spreads plague.
 - **Itch mite:** Causes scabies.
 - **Housefly:** Spreads bacterial infections, not malaria.

Reference: Parasitology by Chatterjee, 13th Edition, Page 68.

25. Hormonal ----- with:

Correct Answer: (b) Endocrine imbalances

Explanation:

- Diseases caused by **hormonal imbalances** are linked to **endocrine disorders**, e.g., diabetes (insulin deficiency) or hyperthyroidism (excess thyroid hormone).
- Other options relate to different categories:
 - **Genetic disorders:** Caused by mutations.
 - **Immunologic reactions:** Involve immune responses.
 - **Nutritional imbalances:** Deficiencies or excess nutrients.

Reference: Guyton and Hall Textbook of Medical Physiology, 14th Edition, Page 919.

26. The disease ----- pallidum is:

Correct Answer: (b) Syphilis

Explanation:

- **Treponema pallidum** is a spirochete bacterium responsible for causing **syphilis**, a sexually transmitted disease.
- Other options:
 - **Measles:** Caused by a virus.
 - **Hepatitis:** Caused by Hepatitis viruses.
 - **Tetanus:** Caused by Clostridium tetani.

Reference: Microbiology by Prescott et al., 10th Edition, Page 540.

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27. Whooping ----- by:

Correct Answer: (b) Bordetella pertussis

Explanation:

- **Bordetella pertussis** is the causative agent of **whooping cough** (pertussis), a respiratory infection characterized by severe coughing fits.
 - Other options:
 - **Trichophyton rubrum**: Causes fungal infections (e.g., athlete's foot).
 - **Varicella zoster**: Causes chickenpox.
 - **Yersinia pestis**: Causes plague.
- Reference:** Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 315.
-

28. The group of ----- known as:

Correct Answer: (d) Epithelial tissue

Explanation:

- **Epithelial tissue** covers the body surface and lines internal cavities and tubes, providing protection, secretion, and absorption.
 - Other options:
 - **Connective tissue**: Supports and binds tissues.
 - **Muscular tissue**: Facilitates movement.
 - **Nervous tissue**: Transmits signals.
- Reference:** Human Anatomy and Physiology by Elaine Marieb, 11th Edition, Page 112.
-

29. During clotting, the ----- known as:

Correct Answer: (d) Thromboplastin

Explanation:

- **Tissue factor (Thromboplastin)** is a protein released by damaged tissues that activates the clotting cascade by converting prothrombin to thrombin.
- Other options:
 - **Fibrinogen**: A clotting protein converted to fibrin.
 - **Prothrombin**: A precursor to thrombin.

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- **Fibrin:** The protein that forms the clot.
Reference: Guyton and Hall Textbook of Medical Physiology, 14th Edition, Page 461.
-

30. The internal ----- to as:

Correct Answer: (c) Mitosol

Explanation:

- The **mitosol** refers to the mitochondrial matrix, the innermost compartment of the mitochondria, where the citric acid cycle and other enzymatic reactions occur.
 - Other options:
 - **Peroxisome:** Organelle involved in fatty acid oxidation.
 - **Nucleosome:** Structural unit of DNA.
 - **Microsome:** Artifacts formed from fragmented endoplasmic reticulum.**Reference:** Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 688.
-

31. The cell ----- the cell is:

Correct Answer: (d) Microtubule

Explanation:

- **Microtubules** are part of the cytoskeleton and provide structural support, helping maintain the cell's shape and facilitating intracellular transport.
 - Other options:
 - **Microfilament:** Provides motility and flexibility but not the primary determinant of shape.
 - **Endoplasmic Reticulum:** Involved in protein and lipid synthesis.
 - **Ribosome:** Synthesizes proteins, unrelated to cell shape.**Reference:** Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 735.
-

32. The sterility ----- is:

Correct Answer: (a) Membrane Filtration Method

Explanation:

- **Membrane filtration** is the preferred method for testing sterility in oily parenteral preparations because it efficiently separates microorganisms from oil-based products.

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- Other methods:
 - **Pyrogen Test:** Detects pyrogens, not sterility.
 - **Light Blockage Method:** Used for particulate matter, not sterility.
 - **Leak Test:** Checks for container integrity.
Reference: Indian Pharmacopoeia, 2022 Edition, Volume II, Page 1246.
-

33. Which of ----- health:

Correct Answer: (c) Environment

Explanation:

- **Environment** is a determinant of health, not a direct indicator. Indicators of health include:
 - **Mortality:** Death rates.
 - **Morbidity:** Illness rates.
 - **Disability rate:** Proportion of individuals with functional impairments.
Reference: Park's Textbook of Preventive and Social Medicine, 26th Edition, Page 65.
-

34. The first ----- is:

Correct Answer: (a) Crystal violet

Explanation:

- **Crystal violet** is the primary stain in **Gram staining**, retained by Gram-positive bacteria due to their thick peptidoglycan cell walls.
 - Other dyes:
 - **Methylene blue, Neutral red, Phenol red:** Used in other staining methods.
Reference: Microbiology by Ananthanarayan and Paniker, 11th Edition, Page 65.
-

35. Tuberculosis ----- infection:

Correct Answer: (b) Air-borne

Explanation:

- **Tuberculosis (TB)** is caused by **Mycobacterium tuberculosis**, transmitted via **airborne droplets** from infected individuals.
- Other transmission routes:

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- **Arthropod-borne, Surface-borne, Water-borne:** Not applicable for TB.
Reference: Harrison's Principles of Internal Medicine, 20th Edition, Page 1205.
-

36. Which of the ----- an animal source:

Correct Answer: (c) Gelatin

Explanation:

- **Gelatin** is a natural emulsifying agent derived from animal collagen, commonly used in pharmaceutical emulsions and suspensions.
- Other options:
 - **Pectin and Starch:** Plant-derived.
 - **Agar:** Algae-derived.

Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1087.

37. The semisolid ----- application is:

Correct Answer: (b) Jellies

Explanation:

- **Jellies** are water-soluble semisolid formulations that leave no visible residue after application due to their high water content.
- Other options:
 - **Creams, Pastes, and Ointments:** May leave residues.

Reference: Pharmaceutics by Aulton, 5th Edition, Page 192.

38. Lignocaine ----- as a:

Correct Answer: (d) Local Anaesthetic

Explanation:

- **Lignocaine (Lidocaine)** is a widely used **local anesthetic** for numbing tissues before surgical or dental procedures.
- Other options:
 - **Sedative, General Anaesthetic, and Hypnotic:** Incorrect applications for lignocaine.

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Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 274.

39. The type of ----- chest is:

Correct Answer: (d) Fracture of clavicle

Explanation:

- In **clavicle fractures**, immobilizing the arm and bandaging it to the chest provides stability and prevents further injury.
 - Other fractures listed (radius, ulna, pelvis) require different immobilization techniques.
Reference: Orthopaedics and Trauma by L.M. Solomon, 10th Edition, Page 352.
-

40. The medicinal ----- painted in:

Correct Answer: (c) Orange

Explanation:

- **Cyclopropane**, an anesthetic gas, is stored in **orange-painted cylinders** to distinguish it from other gases.
 - Color codes for medical gas cylinders:
 - **White:** Oxygen.
 - **Black:** Nitrogen.
 - **Blue:** Nitrous oxide.**Reference:** Anesthesia Equipment by Eger et al., 2nd Edition, Page 175.
-

41. Dose formula ----- weight is:

Correct Answer: (b) Clark's formula

Explanation:

- **Clark's formula** calculates the dose of a drug based on the patient's body weight:

$$\text{Dose} = \frac{\text{Weight in kg}}{70} \times \text{Adult dose.}$$

- Other formulas:
 - **Fried's formula:** For pediatric doses based on age.

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- **Young's formula:** Adjusts doses for children based on age.
- **Dilling's formula:** Used for children's doses based on their age and the adult dose.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 62.

42. Which of the ----- preparations:

Correct Answer: (b) They should have an acidic pH

Explanation:

- Ophthalmic preparations should have a **neutral or slightly alkaline pH (around 7.4)** to match tear fluid, ensuring comfort and minimizing irritation.
- Other requirements:
 - **Sterility:** Prevents infection.
 - **Iso-osmotic:** Avoids irritation.
 - **Stability:** Ensures efficacy during storage.
Reference: Aulton's Pharmaceutics, 5th Edition, Page 497.

43. Which of the ----- incompatibility:

Correct Answer: (b) Immiscibility

Explanation:

- **Immiscibility** is a **physical incompatibility**, not therapeutic.
- Therapeutic incompatibilities occur when drugs interact in a way that alters their therapeutic effect, e.g.:
 - **Drug interactions, wrong dose/dosage form, synergistic/antagonistic effects.**
Reference: Cooper and Gunn's Dispensing for Pharmaceutical Students, 13th Edition, Page 256.

44. Which of ----- contraception:

Correct Answer: (d) Intrauterine device

Explanation:

- **Intrauterine devices (IUDs)** are physical devices inserted into the uterus to prevent pregnancy, making them a **mechanical method**.

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- Other options:
 - **Contraceptive pill, foam tablet, jelly:** These are chemical methods.
Reference: Textbook of Gynecology by D.C. Dutta, 8th Edition, Page 89.
-

45. UV ----- cancer:

Correct Answer: (a) Physical agents

Explanation:

- **UV rays** are classified as **physical agents** that cause skin cancer by inducing DNA damage.
 - Other options:
 - **Biological agents:** Include viruses like HPV.
 - **Chemical agents:** Include carcinogens like benzene.
 - **Mechanical agents:** Not applicable here.**Reference:** Robbins and Cotran Pathologic Basis of Disease, 10th Edition, Page 296.
-

46. Which of the ----- anaesthetic:

Correct Answer: (d) Tetracaine

Explanation:

- **Tetracaine** is a **lipid-soluble PABA (para-aminobenzoic acid) ester** used as a local anesthetic with a long duration of action.
 - Other options:
 - **Bupivacaine:** Amide-based anesthetic.
 - **Lignocaine:** Amide, not a PABA ester.
 - **Procainamide:** Used as an antiarrhythmic drug, not a local anesthetic.**Reference:** Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 375.
-

47. The part of ----- termed as:

Correct Answer: (b) Inscription

Explanation:

INSCRIPTION:

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- This is the main part of the prescription order, contains the names and quantities of the prescribed ingredients.
 - The names of ingredients are generally written in English language but common abbreviation used can be written both in English and Latin languages.
 - The medicament may be prescribed as an official preparation, a proprietary product, a nonproprietary product (Generic), not official or a specific or individual formula.
 - In case of special or individual formula, the quantity of each ingredient will be stated together with a description of the type of the preparation, e.g.: cream, mixture, lotion etc.
 - The name of each ingredient is written on a separate line along with its quantity.
Reference: Remington: The Science and Practice of Pharmacy, 22nd Edition, Page 1782.
-

48. Skeletal muscle ----- drugs:

Correct Answer: (c) Drugs acting on the peripheral nervous system

Explanation:

- **Skeletal muscle relaxants** act on the **neuromuscular junction** or directly on skeletal muscles, targeting the **peripheral nervous system**.
 - Other options:
 - **Autonomic nervous system:** Regulates involuntary functions.
 - **Central nervous system:** Controls brain and spinal cord.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 396.
-

49. Erythropoietin ----- hormone:

Correct Answer: (a) Glycoprotein

Explanation:

- **Erythropoietin** is a **glycoprotein hormone** produced in the kidney that stimulates red blood cell production in the bone marrow.
 - Other options:
 - **Mucoproteins:** Contain mucopolysaccharides.
 - **Chromoproteins and Metalloproteins:** Contain pigments or metals.
Reference: Harrison's Principles of Internal Medicine, 20th Edition, Page 1007.
-

50. Stage II of ----- as:

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Correct Answer: (c) Stage of delirium

Explanation:

STAGE	Respiration		Ocular movem.	Pupil size	Reflexes	SK.mus. tone	B. P.	H. R.	USES				
	Thor.	Abd.											
I ANALGESIA			NORMAL		 				Labour, Incisions & Minor ops.				
II DELIRIUM			ROVING EYE BALLS		 				NIL				
SURGICAL ANAESTHESIA													
										1	2	3	4
										III	IV		
IV MEDULLARY PARALYSIS													

Fig. 27.1: Stages of general anaesthesia

Reference: KD tripathi, Essentials of Medical Pharmacology,, 7th Edition, Page 418.

51. High ----- known as:

Correct Answer: (c) Inhibitors of $\text{Na}^+\text{K}^+2\text{Cl}^-$ co-transporters

Explanation:

- **High ceiling diuretics (loop diuretics)** act by inhibiting the $\text{Na}^+\text{K}^+2\text{Cl}^-$ co-transporter in the ascending limb of the loop of Henle, resulting in potent diuresis.
- Examples: **Furosemide, Bumetanide.**
- Other options involve different mechanisms unrelated to loop diuretics.

Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 628.

52. What is the number ----- Scheme (RDSS)?

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Correct Answer: (b) 5

Explanation:

- The **National Power Training Institute (NPTI)** under the **RDSS** has designed **five job roles** aimed at enhancing workforce skills in the power distribution sector.

Reference: National Power Training Institute Documentation, 2023.

53. Chlorpromazine ----- structure:

Correct Answer: (b) Phenothiazine

Explanation:

- **Chlorpromazine** is a first-generation antipsychotic drug that belongs to the **phenothiazine** class, containing the phenothiazine ring in its structure.
- Other options like **Coumarin, Quinolone, and Indole** are unrelated to Chlorpromazine's structure.

Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 485.

54. What is the process ----- motor called:

Correct Answer: (d) Tumbling

Explanation:

- **Tumbling** involves mixing powders by rotating them in a **large container** powered by an electric motor, ensuring uniform distribution.
- Other methods:
 - **Trituration:** Grinding with a mortar and pestle.
 - **Sifting:** Using a sieve to mix powders.
 - **Spatulation:** Mixing with a spatula on a tile.

Reference: Pharmaceutics by Aulton, 5th Edition, Page 281.

55. Which of the ----- drug:

Correct Answer: (d) Codeine

Explanation:

- **Codeine** is an **opioid analgesic** and antitussive.

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- Non-opioid drugs:
 - **Noscapine, Chlorphendianol, and Dextromethorphan:** Used as antitussives but are non-opioid.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 293.
-

56. Provisions-----depicted in:

Correct Answer: (b) Schedule F(I)

Explanation:

- **Schedule F(I)** of the Drugs and Cosmetics Act, 1940, provides provisions and guidelines for the manufacture, storage, and distribution of **bacterial vaccines, viral vaccines, antisera, and diagnostic antigens.**
 - Other schedules:
 - **Schedule E(I):** List of poisonous substances.
 - **Schedule C(I):** Biological products other than vaccines.
 - **Schedule D(I):** Special exemptions for imported drugs.
Reference: Drugs and Cosmetics Act and Rules, 2022 Edition, Page 240.
-

57. The potency of ----- of its:

Correct Answer: (a) Acid neutralizing capacity

Explanation:

- The **acid neutralizing capacity** of an antacid measures its ability to neutralize gastric acid and relieve hyperacidity-related symptoms.
 - Other options:
 - **Precipitating surface proteins, H⁺ blocking action, and delayed gastric emptying:** Are unrelated to the potency of antacids.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 621.
-

58. 4,4'-diaminodiphenylsulfone ----- of:

Correct Answer: (c) Dapsone

Explanation:

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- **Dapsone** is an antibacterial agent primarily used to treat **leprosy** and **dermatitis herpetiformis**. Its chemical structure includes two amino groups attached to a diphenylsulfone backbone.
 - Other drugs:
 - **Metformin**: A hypoglycemic agent.
 - **Chloroquine**: Antimalarial.
 - **Captopril**: ACE inhibitor.**Reference:** Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 1335.
-

59. Which of the ----- ointments:

Correct Answer: (c) Glycerine

Explanation:

- **Glycerine (Glycerin)** is a humectant that retains moisture in ointments, improving their texture and stability.
 - Other options:
 - **Boric acid**: Antiseptic.
 - **Beeswax**: Thickening agent.
 - **Gelatin**: Gelling agent.**Reference:** Pharmaceutics by Aulton, 5th Edition, Page 280.
-

60. _____ is a major ----- nervous system:

Correct Answer: (b) Acetylcholine

Explanation:

- **Acetylcholine** is the primary neurotransmitter at **parasympathetic synapses** and some sympathetic ganglia.
 - Other options:
 - **Noradrenaline**: Sympathetic neurotransmitter.
 - **Serotonin and Dopamine**: Neurotransmitters in the central nervous system, not the autonomic nervous system.**Reference:** Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 86.
-

61. Which type of ----- experimentation?

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Correct Answer: (b) Descriptive Toxicology

Explanation:

- **Descriptive toxicology** involves conducting **animal experiments** to evaluate the safety, toxicity, and efficacy of substances. This information helps in risk assessment.
 - Other types:
 - **Occupational toxicology:** Evaluates workplace chemical exposures.
 - **Clinical toxicology:** Focuses on poison diagnosis and treatment in humans.
 - **Regulatory toxicology:** Uses gathered data for regulatory decision-making.
- Reference:** Casarett and Doull's Toxicology, 8th Edition, Page 3.
-

62. A drug derived from ----- group?

Correct Answer: (b) Glycosides

Explanation:

- **Digitalis purpurea** is the source of cardiac **glycosides** such as digoxin and digitoxin, which are used to treat heart failure and arrhythmias.
 - Other options:
 - **Terpenoids:** Examples include menthol.
 - **Alkaloids:** Found in plants like opium poppy.
 - **Flavonoids:** Found in fruits and vegetables.
- Reference:** Pharmacognosy by C.K. Kokate, 53rd Edition, Page 450.
-

63. The Philadelphia ----- feature of:

Correct Answer: (c) Chronic myeloid leukemia

Explanation:

- The **Philadelphia chromosome** is a result of a translocation between chromosomes **9 and 22**, producing the BCR-ABL fusion gene, a characteristic of **chronic myeloid leukemia (CML)**.
 - Other options:
 - **Acute lymphoblastic leukemia** may have other chromosomal abnormalities.
 - **Hodgkin's lymphoma and Multiple myeloma** do not involve the Philadelphia chromosome.
- Reference:** Harrison's Principles of Internal Medicine, 20th Edition, Page 906.
-

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64. In the context of ----- includes:

Correct Answer: (a) Measures to prevent the occurrence of diseases

Explanation:

- **Primary prevention** aims to reduce the incidence of diseases by addressing risk factors, such as immunization, health education, and lifestyle modifications.
 - Other levels of prevention:
 - **Secondary prevention:** Diagnostic testing for early detection.
 - **Tertiary prevention:** Rehabilitation services.
 - **Treatment:** Involves managing existing diseases.
- Reference:** Park's Textbook of Preventive and Social Medicine, 26th Edition, Page 60.
-

65. In the ----- event is:

Correct Answer: (d) Endothelial injury and the subsequent accumulation of lipids

Explanation:

- **Endothelial injury** triggers inflammation and allows the accumulation of **lipids**, which leads to the formation of fatty streaks and plaques in arterial walls, initiating **atherosclerosis**.
 - Other options describe later stages or unrelated events in the process.
- Reference:** Robbins and Cotran Pathologic Basis of Disease, 10th Edition, Page 496.
-

66. What is the primary ----- as an antacid?

Correct Answer: (d) Neutralizing gastric acid by increasing gastric pH

Explanation:

- **Aluminum hydroxide** neutralizes stomach acid by reacting with hydrochloric acid (HCl) to form aluminum chloride and water, raising the gastric pH.
 - Other options:
 - **Increasing lower esophageal sphincter tone and protecting the stomach lining:** These are effects of other classes of drugs (e.g., prokinetics and sucralfate).
 - **Decreasing gastric acid secretion:** This is the action of proton pump inhibitors (PPIs) or H₂ receptor blockers.
- Reference:** Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 621.

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67. An enzyme that ----- as a:

Correct Answer: (a) Kinase

Explanation:

- **Kinases** catalyze the transfer of phosphate groups from high-energy molecules (like ATP) to substrates, a process called phosphorylation.
 - Other options:
 - **Ligase:** Joins two molecules together.
 - **Isomerase:** Catalyzes isomerization.
 - **Hydrolase:** Catalyzes hydrolysis reactions.
- Reference:** Lehninger Principles of Biochemistry, 7th Edition, Page 115.
-

68. Bisphosphonates----- treatment of:

Correct Answer: (d) Osteoporosis

Explanation:

- **Bisphosphonates** inhibit bone resorption by osteoclasts, increasing bone mineral density, making them the first-line treatment for **osteoporosis**.
 - Other options:
 - **Rheumatoid arthritis and osteoarthritis:** Treated with NSAIDs, DMARDs, or corticosteroids.
 - **Gout:** Treated with drugs like allopurinol or colchicine.
- Reference:** Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 1305.
-

69. What is the primary ----- cancer?

Correct Answer: (b) It acts as an estrogen receptor antagonist

Explanation:

- **Tamoxifen** is a selective estrogen receptor modulator (SERM) that blocks estrogen receptors in breast tissue, reducing tumor growth in **estrogen receptor-positive breast cancer**.
- Other options:
 - **Agonist effects:** Tamoxifen acts as an estrogen receptor agonist in other tissues like bone and endometrium.

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- **Inhibition of estrogen synthesis:** This is the action of aromatase inhibitors.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 882.
-

70. Which ----- conjunctivitis?

Correct Answer: (c) Moxifloxacin

Explanation:

- **Moxifloxacin** is a broad-spectrum fluoroquinolone antibiotic effective against common bacterial pathogens causing conjunctivitis.
 - Other options:
 - **Prednisolone and Ketorolac:** Anti-inflammatory agents, not antibiotics.
 - **Timolol:** Used for glaucoma treatment, not infections.
Reference: Clinical Ophthalmology by Kanski, 8th Edition, Page 230.
-

71. Which strategy -----diseases?

Correct Answer: (c) Reducing the frequency of dosing

Explanation:

- Reducing dosing frequency simplifies the regimen and improves adherence by reducing the likelihood of missed doses.
 - Other options:
 - **Eliminating follow-ups:** Reduces monitoring, which is critical for adherence.
 - **Self-adjustment of doses:** Increases risks of complications.
 - **Increasing regimen complexity:** Leads to confusion and poor adherence.
Reference: Essentials of Medical Pharmacology by K.D. Tripathi, 8th Edition, Page 92.
-

72. Which urinary -----levels?

Correct Answer: (c) Fosfomycin

Explanation:

- **Fosfomycin** is a urinary antiseptic effective against a broad spectrum of uropathogens with minimal systemic absorption.
- Other options:

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- **Doxycycline and Amoxicillin:** Achieve systemic levels.
- **Vancomycin:** Primarily for gram-positive bacteria, not commonly used for UTIs.
Reference: Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition, Page 1324.

73. According to the Drugs ----- drugs?

Correct Answer: (c) If it is an imitation of, or a substitute for, another drug or resembles another drug in a manner likely to deceive or bears upon it or upon its label or container the name of another drug.

Explanation:

- The condition described in option (c) falls under **spurious drugs**, not misbranded drugs.
- Misbranded drugs refer to drugs improperly labeled, falsely advertised, or misleading in appearance.

Reference: Drugs and Cosmetics Act 1940, Chapter III.

74. The blood-brain ----- BBB?

Correct Answer: (c) Astrocytes

Explanation:

- **Astrocytes** maintain the integrity of the **BBB** by supporting endothelial cells with their end-feet processes.
- Other options:
 - **Ependymal cells:** Line ventricles of the brain.
 - **Neurons:** Involved in signal transmission.
 - **Microglia:** Act as immune cells in the CNS.

Reference: Molecular Biology of the Cell by Alberts et al., 6th Edition, Page 788.

75. The International ----- is used to:

Correct Answer: (c) Create a unique global standard for the identification of pharmaceutical substances.

Explanation:

- The **INN system**, coordinated by the WHO, assigns globally recognized names to pharmaceutical substances to ensure uniformity and avoid confusion.

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- Other options:
 - **Chemical structure or brand names:** Not the focus of INN.
 - **Therapeutic classification:** Falls outside INN's scope.
Reference: WHO Guidelines for INN Development, Online Documentation.
-

76. In MS Word, which ----- objects?

Correct Answer: (b) Copy

Explanation:

- The **Copy** feature creates a duplicate of the selected text or object, leaving the original unchanged. It is used in conjunction with the **Paste** command.
 - Other options:
 - **Cut:** Moves the selected item.
 - **Paste:** Places copied or cut content.
 - **Undo:** Reverts the last action.
Reference: MS Word User Guide, Microsoft Documentation.
-

77. What is the ----- computer?

Correct Answer: (a) To load the operating system

Explanation:

- The **BIOS (Basic Input/Output System)** initializes hardware components and loads the operating system into memory during the boot process.
 - Other options:
 - **Manage hardware drivers:** Done by the OS.
 - **Store user files:** Handled by storage drives.
 - **Protect from viruses:** Done by antivirus software.
Reference: Computer Architecture by Stallings, 9th Edition, Page 315.
-

78. Which of the ----- topology?

Correct Answer: (d) Binary

Explanation:

- **Binary** is not a network topology. Common network topologies include:
 - **Star:** Centralized connection point.

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- **Ring:** Nodes connected in a circular structure.
 - **Mesh:** Multiple interconnections for redundancy.
- Reference:** Computer Networking by Tanenbaum, 6th Edition, Page 220.
-

79. In MS ----- refer to?

Correct Answer: (b) The address of a cell in a worksheet

Explanation:

- A **cell reference** identifies the location of a cell using its **row and column coordinates** (e.g., A1, B2).
 - Other options:
 - **Named range:** A label for a group of cells.
 - **Formula:** A function applied to data.
 - **Color of a cell:** Refers to formatting, not a cell reference.
- Reference:** Excel Help Documentation, Microsoft.
-

80. Which of the ----- web browser?

Correct Answer: (b) Mozilla Firefox

Explanation:

- **Mozilla Firefox** is an open-source web browser, meaning its source code is publicly accessible for modification and distribution.
 - Other options:
 - **Google Chrome, Microsoft Edge, and Safari:** Proprietary software.
- Reference:** Mozilla Firefox Development Documentation, Online.
-

81. If “TEACHER-----” coded?

Correct Answer: (c) RTKPEKRCN

Explanation:

- The code increases each letter in "TEACHER" by 2 positions in the alphabetical order. Applying the same logic to "PRINCIPAL":
 - P → R, R → T, I → K, N → P, C → E, I → K, P → R, A → C, L → N.
 - Thus, the code is **RTKPEKRCN**.

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82. If the day ----- day after tomorrow?

Correct Answer: (a) Friday

Explanation:

- If the day before yesterday was Monday:
 - Yesterday was Tuesday.
 - Today is Wednesday.
 - Therefore, the day after tomorrow will be (d) Friday.
-

83. Find the -----AZ, BY, CX?

Correct Answer: (a) DV

Explanation:

- In the series:
 - The first letter progresses alphabetically: $A \rightarrow B \rightarrow C \rightarrow D$.
 - The second letter regresses alphabetically: $Z \rightarrow Y \rightarrow X \rightarrow V$.
 - The missing term is **DV**.
-

84. In a row of ----- the right?

Correct Answer: (b) 35th

Explanation:

- Total students = 50.
 - A's position from the right = $50 - 15 + 1 = 36$
 - Thus, A's position is **35th**.
-

85. Pointing to a boy, ----- to Shyam?

Correct Answer: (a) Brother

Explanation:

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- Shyam's **grandfather's only son** is Shyam's father.
 - The boy is the son of Shyam's father, making him **Shyam's brother**.
-

86. If 60% of ----- number?

Correct Answer: (c) 360

Explanation:

1. Find the original number:

- If 60% of the number is 270, then 1% of the number is $270 / 60 = 4.5$.
- Therefore, 100% of the number (the original number) is $4.5 * 100 = 450$.

2. Find 80% of the original number:

- $80\% \text{ of } 450 = (80/100) * 450 = 360$

Therefore, 80% of the same number is (c) 360.

87. The ratio of the ----- B's present age?

Correct Answer: (b) 40 years

Explanation:

1. Let's represent their present ages:

- Let A's present age be $4x$.
- Let B's present age be $5x$.

2. Represent their ages after 8 years:

- A's age after 8 years: $4x + 8$
- B's age after 8 years: $5x + 8$

3. Set up the equation based on the given information:

- $(4x + 8) / (5x + 8) = 5/6$

4. Solve for x:

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- Cross-multiply: $6(4x + 8) = 5(5x + 8)$
- $24x + 48 = 25x + 40$
- $x = 8$

5. Find B's present age:

- B's present age = $5x = 5 * 8 = 40$ years

Therefore, B's present age is (b) 40 years.

88. If the ----- number?

Correct Answer: (b) 13

Explanation:

1. Let the number be 'x'.

2. Form the equation:

- The sum of the number and its square is 182, so: $x + x^2 = 182$

3. Rearrange the equation:

- $x^2 + x - 182 = 0$

4. Factor the quadratic equation:

- $(x + 14)(x - 13) = 0$

5. Solve for x:

- $x + 14 = 0$ or $x - 13 = 0$
- $x = -14$ or $x = 13$

Since we're looking for a real number, the answer is (b) 13.

89. A sum of money ----- annum?

Correct Answer: (c) 16.66%

Explanation

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- Let the principal be P.
- Total amount after 12 years = 3P.
- Simple interest = 3P – P = 2P.
- Formula: Simple Interest = $\frac{P \times R \times T}{100}$
- Substituting: $2P = \frac{P \times R \times 12}{100} \Rightarrow R = \frac{2 \times 100}{12} = 16.66$

90. If a train running ----- platform?

Correct Answer: (a) 280 m

Explanation:

1. Convert train speed to meters per second:

- 72 km/h = (72 * 1000) meters / (60 * 60) seconds
- 72 km/h = 20 meters/second

2. Calculate the distance covered by the train in 20 seconds:

- Distance = Speed * Time
- Distance = 20 meters/second * 20 seconds = 400 meters

3. Determine the length of the platform:

- Distance covered by the train = Length of the train + Length of the platform
- 400 meters = 120 meters + Length of the platform
- Length of the platform = 400 meters - 120 meters = 280 meters

Therefore, the length of the platform is not among the given options.

The correct answer should be 280 meters.

91. Which Prime -----, Jai Kisan"?

Correct Answer: (b) Lal Bahadur Shastri

Explanation:

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- The slogan "**Jai Jawan, Jai Kisan**" was coined by **Lal Bahadur Shastri** during the Indo-Pak war of 1965 to highlight the importance of soldiers and farmers for India.
Reference: Modern Indian History by Bipan Chandra, Page 468.
-

92. The 'Asiatic ----- whom?

Correct Answer: (b) William Jones

Explanation:

- **William Jones**, a British Indologist, founded the **Asiatic Society** in Kolkata (then Calcutta) in 1784 for the promotion of Oriental studies.
Reference: History of India by R.C. Majumdar, Volume 3, Page 315.
-

93. Which state ----- in India?

Correct Answer: (b) Karnataka

Explanation:

- **Karnataka** accounts for over **70% of India's coffee production**, primarily in the **Chikmagalur, Coorg, and Hassan** districts.
Reference: Indian Economy by Ramesh Singh, 14th Edition, Page 490.
-

94. Who was the ----- Sabha?

Correct Answer: (a) G.V. Mavalankar

Explanation:

- **Ganesh Vasudev Mavalankar** was the **first Speaker of the Lok Sabha** from 1952 to 1956.
Reference: Indian Polity by M. Laxmikanth, 7th Edition, Page 16.5.
-

95. The Quit ----- year?

Correct Answer: (c) 1942

Explanation:

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- The **Quit India Movement** was launched on **August 8, 1942**, by the **Indian National Congress** under Mahatma Gandhi's leadership, demanding an end to British rule.
Reference: Freedom Struggle by Bipan Chandra, Page 423.
-

96. What is the ----- Services (ICDS) scheme?

Correct Answer: (c) Improvement in the health and nutrition of children

Explanation:

- The **ICDS scheme**, launched in 1975, aims to enhance the **health, nutrition, and education** of children under 6 years of age, along with pregnant and lactating women.
Reference: Social Welfare Schemes in India, Ministry of Women and Child Development Documentation.
-

97. Which treaty ----- War?

Correct Answer: (a) Treaty of Salbai

Explanation:

- The **Treaty of Salbai** (1782) ended the First Anglo-Maratha War (1775–1782), ensuring peace between the British and Marathas for 20 years.
Reference: History of Modern India by Bipan Chandra, Page 105.
-

98. Which Indian----- Asia?

Correct Answer: (a) Andaman Islands

Explanation:

- **Barren Island**, located in the **Andaman Islands**, houses the only active volcano in South Asia. It lies about 140 km northeast of Port Blair.
Reference: Geography of India by Majid Husain, 8th Edition, Page 300.
-

99. Which ----- in India?

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Correct Answer: (c) Government of India Act of 1919

Explanation:

- The **Government of India Act of 1919** introduced the **diarchy system**, where certain subjects were administered by elected Indian ministers while others remained under British officials.

Reference: Indian Polity by M. Laxmikanth, 7th Edition, Page 10.5.

100. Which state ----- Tribes?

Correct Answer: (a) Madhya Pradesh

Explanation:

- **Madhya Pradesh** has the highest number of **Scheduled Tribes (46 recognized tribes)** in India, including the Gond, Bhil, and Baiga communities.

Reference: Census of India, 2011 Data on Scheduled Tribes.