

HOME SCIENCE (ELECTIVE) (B) - 2025 Question Paper with Solutions

Time Allowed :2 Hours	Maximum Marks :40
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. Candidate must enter his/her Question Booklet Serial No. (10 Digits) in the OMR Sheet.
2. Candidates are required to give their answers in their own words as far as possible.
3. 15 minutes of extra time have been allotted for the candidates to read the questions carefully.

1. Which nutrient helps in the formation of new cells in the body?

- (A) Fat
- (B) Protein
- (C) Sodium
- (D) Calcium

Correct Answer: (B) Protein

Solution:

Step 1: Understanding the Concept:

The question asks to identify the nutrient responsible for building and repairing body tissues, which includes the formation of new cells. The primary building blocks of the body are made from specific macronutrients.

Step 2: Detailed Explanation:

- **Protein:** Proteins are essential macronutrients made up of amino acids. These amino acids are the fundamental building blocks for all cells, tissues, and organs in the body. They are crucial for growth, repair, and maintenance of body tissues, including the formation of new cells.
- **Fat:** Fat is a major source of energy and helps in the absorption of fat-soluble vitamins, but it is not the primary nutrient for cell formation.
- **Sodium:** Sodium is an electrolyte that helps regulate fluid balance and is essential for nerve and muscle function, but it does not form new cells.
- **Calcium:** Calcium is a mineral primarily known for its role in building strong bones and teeth. It is also involved in muscle contraction and nerve signaling, but not in the fundamental

formation of cells.

Therefore, protein is the correct answer as it directly provides the materials needed for cell synthesis and repair.

Step 3: Final Answer:

Based on the functions of the given nutrients, protein is the nutrient that helps in the formation of new cells in the body.

Quick Tip

For nutrition-based questions, remember the primary roles of the main nutrient groups: Carbohydrates for energy, Fats for energy and vitamin absorption, Proteins for building and repair, and Vitamins/Minerals for various metabolic functions.

2. Which of the following factors affects meal planning?

- (A) Number of family members
- (B) Age
- (C) Gender
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Meal planning is the process of deciding what you are going to eat for a specific period, such as a day or a week. Effective meal planning considers various factors to ensure the meals are appropriate, nutritious, and practical for the individuals they are intended for.

Step 2: Detailed Explanation:

Each of the options listed plays a crucial role in meal planning:

- **Number of family members:** This directly determines the quantity of food that needs to be prepared. Planning for one person is very different from planning for a large family.
 - **Age:** Nutritional needs vary significantly with age. Infants, children, adolescents, adults, and elderly individuals all have different requirements for calories, proteins, vitamins, and minerals.
 - **Gender:** Generally, males may have different caloric and nutrient requirements compared to females, especially depending on their activity levels and physiological state (e.g., pregnancy).
- Since all these factors—number of members, age, and gender—are fundamental considerations in creating a suitable meal plan, the correct option is (D) All of these.

Step 3: Final Answer:

All the given factors, including the number of family members, their age, and gender, affect

meal planning. Therefore, 'All of these' is the correct answer.

Quick Tip

In multiple-choice questions, if you can confirm that more than one of the given options is correct, and an "All of these" option is available, it is very likely the right answer. Always check each option's validity before concluding.

3. Which of the following is most comfortable while clothing a newborn body?

- (A) Front opening
- (B) Back opening
- (C) Upper opening
- (D) Lower opening

Correct Answer: (A) Front opening

Solution:

Step 1: Understanding the Concept:

Newborn babies are delicate, have limited neck control, and can be fussy during dressing. The design of their clothing should prioritize ease of dressing for the caregiver and comfort for the baby.

Step 2: Detailed Explanation:

- **Front opening:** Clothes with front openings (like snaps, zips, or kimono-style ties) are highly recommended for newborns. They allow the caregiver to lay the baby down on the open garment and simply wrap it around them, without having to pull anything over the baby's fragile head. This minimizes distress for the baby and makes the process quicker and easier.
- **Back opening:** Clothes that fasten at the back are impractical for newborns as they spend most of their time lying on their backs. The fasteners can cause discomfort and are difficult for the caregiver to manage.
- **Upper opening (Head-hole):** While common, pulling clothes over a newborn's head can be challenging due to their lack of head control and can be upsetting for the baby. Front openings are generally preferred to avoid this.
- **Lower opening:** This refers to openings at the crotch for diaper changes, which is a feature often combined with front or upper openings, but it is not the primary design for dressing the entire body.

Therefore, front-opening clothes are the most comfortable and practical choice for newborns.

Step 3: Final Answer:

Considering the ease and comfort for both the baby and the caregiver, clothes with a front opening are the most suitable option for a newborn.

Quick Tip

When answering questions about infant care, always think from a practical and safety-first perspective. What is the easiest, safest, and most comfortable method for a baby who cannot support themselves?

4. Which of the following is not a one-time investment?

- (A) National Savings Certificate
- (B) Fixed Deposits
- (C) Recurring Deposits
- (D) Kisan Vikas Patra

Correct Answer: (C) Recurring Deposits

Solution:

Step 1: Understanding the Concept:

A one-time investment involves depositing a lump sum of money at the beginning of the investment period. In contrast, a periodic investment involves making regular contributions over time. The question asks to identify the option that is not a one-time (lump-sum) investment.

Step 2: Detailed Explanation:

- **National Savings Certificate (NSC):** This is a government savings bond where an individual invests a lump sum amount at the time of purchase for a fixed tenure.
- **Fixed Deposits (FD):** An FD is an instrument where a lump sum is deposited with a bank for a fixed period at a predetermined interest rate. It is a classic example of a one-time investment.
- **Recurring Deposits (RD):** An RD requires the investor to deposit a fixed amount of money at regular intervals (usually monthly) for a specified period. This involves periodic payments rather than a single lump-sum investment.
- **Kisan Vikas Patra (KVP):** This is another government savings scheme where a lump sum is invested, and it doubles in a predetermined period.

Based on the descriptions, Recurring Deposit is the only option that involves systematic, periodic investments rather than a one-time deposit.

Step 3: Final Answer:

Recurring Deposits are not a one-time investment as they require regular, periodic contributions.

Quick Tip

Associate "Recurring" with "repeating" or "regular." This will help you remember that Recurring Deposits (RDs) involve making deposits repeatedly over a period, distinguishing them from lump-sum investments like FDs.

5. How many primary colours are there?

- (A) 2
- (B) 3
- (C) 4
- (D) 5

Correct Answer: (B) 3

Solution:

Step 1: Understanding the Concept:

Primary colors are the foundational colors from which all other colors can be created through mixing. They themselves cannot be made by mixing other colors. There are two main models for primary colors: the additive model (for light) and the subtractive model (for pigments like paint and ink).

Step 2: Detailed Explanation:

In the context of art and general knowledge, the question typically refers to the subtractive primary colors used in pigments (paint, etc.).

The traditional subtractive primary colors are:

- Red
- Yellow
- Blue

These three colors form the basis of the RYB (Red, Yellow, Blue) color model. By mixing these three colors, secondary colors (like orange, green, and purple) can be created. The other common model is the additive RGB (Red, Green, Blue) model, used for light (e.g., in computer screens and televisions), which also consists of three primary colors. In either standard model, the number of primary colors is three.

Step 3: Final Answer:

There are three primary colors.

Quick Tip

Remember the acronyms for the two main color models: **RYB** (Red, Yellow, Blue) for pigments/paint and **RGB** (Red, Green, Blue) for light. Both systems are based on three primary colors.

6. After how many months should children be given complementary food?

- (A) 3 months
- (B) 6 months
- (C) 8 months
- (D) 9 months

Correct Answer: (B) 6 months

Solution:

Step 1: Understanding the Concept:

Complementary feeding is the process of introducing other foods and liquids to an infant's diet alongside breast milk or formula. This is done when milk alone is no longer sufficient to meet the infant's growing nutritional needs. [1, 12, 15, 30] The timing for this introduction is based on global health recommendations.

Step 2: Detailed Explanation:

The World Health Organization (WHO) and other major health bodies recommend exclusive breastfeeding for the first 6 months of a baby's life. Around the age of 6 months, an infant's needs for energy and nutrients start to exceed what can be provided by breast milk alone. At this stage, the infant is also developmentally ready to consume other foods. Therefore, complementary foods should be introduced at 6 months of age to complement their milk intake. Introducing solids before 4 months is not recommended, and delaying beyond 6 months may lead to growth faltering.

Step 3: Final Answer:

According to guidelines from the World Health Organization (WHO), children should be given complementary food starting at 6 months of age.

Quick Tip

Remember the "Rule of 6" for infant feeding: **exclusive** breastfeeding for the first **6** months, and introduction of complementary foods **at 6** months.

7. What right(s) is/are given to consumers under the Consumer Protection Act?

- (A) Right to selection
- (B) Right to consumer education
- (C) Right to security
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

The Consumer Protection Act is designed to protect the interests of consumers by establishing a legal framework to address grievances against unfair trade practices and deficient goods or services. It grants several fundamental rights to consumers.

Step 2: Detailed Explanation:

The Consumer Protection Act outlines several key rights for consumers. Let's examine the options provided:

- **Right to selection (or Right to Choose):** This right ensures that consumers have access to a variety of goods and services at competitive prices and can make an informed choice.
- **Right to consumer education:** This right empowers consumers with the knowledge and skills needed to be informed consumers.
- **Right to security (or Right to Safety):** This right protects consumers against the marketing of goods and services which are hazardous to life and property.

Other important rights include the Right to be Informed, the Right to be Heard (or Represented), and the Right to Seek Redressal. Since all the options listed—(A), (B), and (C)—are recognized consumer rights under the act, the correct answer is (D).

Step 3: Final Answer:

The Right to selection, Right to consumer education, and Right to security are all rights granted to consumers under the Consumer Protection Act. Thus, the correct option is 'All of these'.

Quick Tip

Familiarize yourself with the six major consumer rights: Safety, Information, Choice, to be Heard, Redressal, and Consumer Education. This will help you quickly identify correct options in related questions.

8. Absorbency is the special property of which textile?

- (A) Cotton
- (B) Woollen
- (C) Silk

(D) Polyester

Correct Answer: (A) Cotton

Solution:

Step 1: Understanding the Concept:

Absorbency in textiles refers to a fabric's ability to take in and hold moisture. This property is crucial for comfort, especially in clothing worn next to the skin. Different fibers have different levels of absorbency based on their chemical and physical structure.

Step 2: Detailed Explanation:

- **Cotton:** Cotton is a natural cellulosic fiber. Its structure contains many hollow spaces (lumens), which makes it highly absorbent. It can absorb a significant amount of water, making it comfortable to wear in warm climates as it absorbs sweat.
- **Woollen:** Wool is a natural protein fiber that can also absorb moisture, but it is primarily known for its insulating properties.
- **Silk:** Silk is another natural protein fiber with moderate absorbency.
- **Polyester:** Polyester is a synthetic polymer. It is hydrophobic, meaning it repels water rather than absorbs it. Its low absorbency is why it is known for its moisture-wicking properties and quick-drying capabilities, often used in activewear.

Among the given options, cotton is most distinguished by its high absorbency.

Step 3: Final Answer:

Cotton is the textile best known for its special property of high absorbency.

Quick Tip

Remember the general rule: Natural fibers (like cotton, linen) are typically absorbent, while synthetic fibers (like polyester, nylon) are generally not absorbent and instead are moisture-wicking.

9. What should be the clothes worn on the occasion of mourning?

- (A) White
- (B) Flashy
- (C) Colourful
- (D) None of these

Correct Answer: (A) White

Solution:

Step 1: Understanding the Concept:

The choice of clothing for mourning is deeply rooted in cultural and religious traditions. Colors carry significant symbolism, and certain colors are deemed appropriate to show respect and solemnity on such occasions.

Step 2: Detailed Explanation:

- In many Eastern cultures, particularly in Hinduism in India, **white** is the color of mourning. It symbolizes purity, peace, and detachment from the material world, which are sentiments associated with funerals. - In contrast, many Western cultures traditionally use black as the color of mourning. - **Flashy** and **Colourful** clothes are associated with celebration, joy, and festivity. Wearing such attire to a funeral would be considered highly inappropriate and disrespectful in most cultures, as it contrasts with the somber and respectful atmosphere of the occasion. Given the likely cultural context of the question paper, white is the most appropriate answer.

Step 3: Final Answer:

The appropriate color for clothes worn on the occasion of mourning in many Indian cultures is white.

Quick Tip

Be aware of cultural color symbolism. For mourning, remember: **White** is common in many Eastern cultures (e.g., Hinduism), while **Black** is traditional in many Western cultures.

10. Which of the following is not an endocrine gland?

- (A) Pituitary gland
- (B) Thyroid gland
- (C) Salivary gland
- (D) Adrenal gland

Correct Answer: (C) Salivary gland

Solution:**Step 1: Understanding the Concept:**

Glands in the human body are classified into two main types based on how they release their secretions: - **Endocrine glands:** These are ductless glands that secrete hormones directly into the bloodstream. These hormones then travel to target organs to regulate various bodily functions.

- **Exocrine glands:** These glands have ducts through which they release their secretions onto a surface, either exte

Step 2: Detailed Explanation:

- **Pituitary gland, Thyroid gland, and Adrenal gland:** These are all major glands of the endocrine system. They produce and secrete vital hormones (like growth hormone, thyroid hormone, and adrenaline, respectively) directly into the blood.

- **Salivary gland:** This gland produces saliva and secretes it into the mouth through ducts. Because it uses ducts to transport its secretion to a specific location (the mouth), it is classified as an exocrine gland.

Therefore, the salivary gland is not an endocrine gland.

Step 3: Final Answer:

The Salivary gland is an exocrine gland, not an endocrine gland.

Quick Tip

Remember the key difference: **Endocrine** glands secrete hormones **into** the bloodstream (ductless), while **Exocrine** glands secrete substances through ducts to an **exit** point (a surface). Saliva **exits** into the mouth, making the salivary gland **exocrine**.

11. On the basis of duration which of the following is budget?

- (A) Daily budget
- (B) Weekly budget
- (C) Annual budget
- (D) All of these

Correct Answer: (D) All of these

Solution:**Step 1: Understanding the Concept:**

A budget is a financial plan for a defined period. Budgets can be classified based on the duration they cover. The question asks to identify which of the given options are valid types of budgets based on their time frame.

Step 2: Detailed Explanation:

- **Daily budget:** This is a plan for income and expenditure for a single day. It is a short-term budget.

- **Weekly budget:** This plan covers a period of one week.

- **Annual budget:** This is a long-term budget that plans finances for an entire year.

All three options represent financial plans distinguished by their duration. Therefore, they are all types of budgets classified on the basis of time.

Step 3: Final Answer:

Since Daily, Weekly, and Annual budgets are all classifications based on duration, the correct

option is All of these.

Quick Tip

When a question asks to classify items and provides an "All of these" option, check if each individual option fits the classification. If more than one does, "All of these" is likely the correct answer.

12. Which of the following is a source of calcium?

- (A) Milk
- (B) Curd
- (C) Paneer
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Calcium is an essential mineral required for building and maintaining strong bones and teeth, as well as for various other bodily functions. The question asks to identify sources of calcium from the given food items.

Step 2: Detailed Explanation:

- **Milk:** Milk is widely recognized as one of the best dietary sources of calcium.
- **Curd (Yogurt):** Curd is a dairy product made by fermenting milk. It is also an excellent source of calcium, often containing amounts comparable to or even higher than milk.
- **Paneer (Cottage Cheese):** Paneer is a type of fresh cheese made from milk. As a concentrated milk product, it is also a rich source of calcium.

Since all three are dairy products, they are all significant sources of calcium.

Step 3: Final Answer:

Milk, Curd, and Paneer are all good sources of calcium. Therefore, the correct option is All of these.

Quick Tip

Remember that food products derived from a primary source often share its key nutritional properties. Since curd and paneer are made from milk, they are also rich in calcium.

13. Which of the following items does not have AGMARK mark?

- (A) Mustard oil
- (B) Cereal
- (C) Pulses
- (D) Jam

Correct Answer: (D) Jam

Solution:

Step 1: Understanding the Concept:

In India, various certification marks are used to denote the quality and standard of different products. AGMARK is a certification mark employed on agricultural products, assuring that they conform to a grade standard notified by the Directorate of Marketing and Inspection.

Step 2: Detailed Explanation:

- **AGMARK:** This mark is typically found on agricultural produce and semi-processed items like cereals, pulses, spices, vegetable oils (like mustard oil), honey, and butter.
- **Mustard oil, Cereal, and Pulses:** These are all agricultural products or directly derived from them, and thus they carry the AGMARK certification.
- **Jam:** Jam is a processed fruit product. Such products (like jams, jellies, squashes, and pickles) fall under the regulations of the Fruit Products Order, 1955, and carry the **FPO mark**, not the AGMARK mark.

Step 3: Final Answer:

Jam, being a processed fruit product, is certified with the FPO mark, not AGMARK. Therefore, it is the correct answer.

Quick Tip

Remember the acronyms: **AGMARK** for **AG**ricultural products. **FPO** for **F**ruit **P**roducts **O**rders. **ISI** for **I**ndustrial products. This helps in quick differentiation.

14. Which of the following products has ISI mark?

- (A) Fruits
- (B) Vegetable
- (C) Iron
- (D) Cereal

Correct Answer: (C) Iron

Solution:

Step 1: Understanding the Concept:

The ISI (Indian Standards Institution) mark is a standard-compliance mark for industrial products in India, issued by the Bureau of Indian Standards (BIS). It certifies that a product conforms to the relevant Indian Standard.

Step 2: Detailed Explanation:

- **ISI Mark:** This mark is mandatory for many products sold in India, especially items involving safety, such as electrical appliances, electronic goods, building materials like cement, and automotive components.

- **Fruits, Vegetables, and Cereal:** These are agricultural products and do not fall under the category of industrial goods that require ISI certification. They are more likely to have AGMARK.

- **Iron:** The term "Iron" here most likely refers to a clothes iron (an electrical appliance) or iron as an industrial material (like iron rods). Both an electric iron and industrial iron materials are required to have the ISI mark to ensure they meet safety and quality standards.

Step 3: Final Answer:

Among the given options, Iron is an industrial product that requires the ISI mark.

Quick Tip

Associate the ISI mark with manufactured or industrial goods, especially those where safety is a concern like electrical appliances (e.g., iron, geyser) or construction materials.

15. Clothes do not protect us from

- (A) Weather
- (B) Insect
- (C) Dust
- (D) Enemy

Correct Answer: (D) Enemy

Solution:

Step 1: Understanding the Concept:

The primary functions of clothing are to provide protection, modesty, and adornment. The question asks to identify what clothing does not protect us from among the given options.

Step 2: Detailed Explanation:

- **Weather:** Clothes protect us from adverse weather conditions such as cold (sweaters, jackets), heat (light cottons), and rain (raincoats).

- **Insect:** Clothing, especially long-sleeved garments, can provide a physical barrier against insect bites.
- **Dust:** Clothes cover our skin, protecting it from dust and dirt.
- **Enemy:** Standard everyday clothing offers no meaningful protection against a human adversary or enemy in a physical confrontation. Specialized protective gear like body armor is required for such situations, which is not what is generally meant by "clothes".

Step 3: Final Answer:

Clothes protect us from weather, insects, and dust, but not from an enemy.

Quick Tip

For questions about the function of an object, consider its direct, everyday purpose. While specialized clothing exists for almost anything, the question refers to the general function of everyday clothes.

16. Which gland is found in the neck?

- (A) Adrenal gland
- (B) Thyroid gland
- (C) Pituitary gland
- (D) Thymus gland

Correct Answer: (B) Thyroid gland

Solution:

Step 1: Understanding the Concept:

The question asks to identify the location of specific glands in the human endocrine system. The endocrine system is a network of glands that produce and release hormones.

Step 2: Detailed Explanation:

Let's review the locations of the glands listed:

- **Adrenal gland:** Located on top of each kidney.
- **Thyroid gland:** A butterfly-shaped gland located in the front of the neck, just below the Adam's apple.
- **Pituitary gland:** Located at the base of the brain.
- **Thymus gland:** Located in the upper part of the chest, behind the sternum and between the lungs.

Based on these locations, the thyroid gland is the one found in the neck.

Step 3: Final Answer:

The thyroid gland is found in the neck.

Quick Tip

Visualize a basic diagram of the human body's endocrine system. The thyroid's position in the neck is a key landmark. Associating "thyroid" with "throat" or "neck" can be a helpful mnemonic.

17. Which of the following is a food preservation method?

- (A) Dehydration
- (B) Freezing
- (C) Canning
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Food preservation involves treating and handling food to stop or slow down spoilage (loss of quality, edibility, or nutritional value) and thus allow for longer storage. The goal is to inhibit the growth of bacteria, fungi, and other microorganisms.

Step 2: Detailed Explanation:

- **Dehydration (Drying):** This method involves removing water from the food. Microorganisms need water to grow, so removing it prevents spoilage.
- **Freezing:** This method lowers the temperature of the food to below 0°C, which stops the growth of most microorganisms and slows down enzymatic activity.
- **Canning:** This method involves heating food to a high temperature to kill microorganisms and then sealing it in an airtight container (can or jar) to prevent new microorganisms from contaminating it.

All three are well-established and effective methods of food preservation.

Step 3: Final Answer:

Dehydration, freezing, and canning are all methods of food preservation. Therefore, the correct option is All of these.

Quick Tip

Food preservation techniques work by controlling factors that cause spoilage, such as temperature (freezing, canning), moisture (dehydration), pH (pickling), or oxygen (vacuum packing).

18. Which of the following is an adulterant added to milk?

- (A) Starch
- (B) Metanil yellow
- (C) Argemone
- (D) Soap stone

Correct Answer: (A) Starch

Solution:

Step 1: Understanding the Concept:

Food adulteration is the act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient. The question asks to identify a common adulterant for milk.

Step 2: Detailed Explanation:

- **Starch:** Starch is commonly added to milk that has been diluted with water. It increases the thickness (viscosity) and the solids-not-fat (SNF) content of the milk, making it appear to be of higher quality than it is.
- **Metanil yellow:** This is a non-permitted synthetic dye, often used to adulterate turmeric powder and sweets to give them a vibrant yellow color.
- **Argemone:** The seeds of the argemone plant are sometimes mixed with mustard seeds. The oil extracted is toxic and can cause epidemic dropsy.
- **Soap stone:** Powdered soap stone is sometimes used to add bulk and weight to other powdered food items, like flour.

Therefore, starch is a known adulterant specifically for milk.

Step 3: Final Answer:

Starch is a common adulterant added to milk to mask dilution with water.

Quick Tip

To detect starch in milk, you can add a few drops of iodine solution. If the milk turns blue-black, it indicates the presence of starch.

19. Which aspect of a food handler does not affect cooking?

- (A) Cleanliness
- (B) Knowledge
- (C) Health
- (D) Habits

Correct Answer: (B) Knowledge

Solution:

Step 1: Understanding the Concept:

This question, while ambiguously phrased, requires differentiating between aspects of a food handler that are directly related to hygiene and physical contamination versus those related to skill and procedure. All listed factors undoubtedly influence the final food product's quality and safety. However, a distinction can be made.

Step 2: Detailed Explanation:

- **Cleanliness, Health, and Habits:** These three aspects are directly tied to the food handler's personal hygiene. A lack of cleanliness, poor health (illness), or bad habits (e.g., not washing hands) can directly transfer pathogens and contaminants to the food during its preparation. These factors create immediate food safety risks through direct contamination.

- **Knowledge:** Knowledge refers to the understanding of recipes, cooking techniques, and food safety principles (e.g., correct cooking temperatures). While a lack of knowledge can result in poorly cooked or unsafe food, it is a procedural or skills-based deficiency rather than a direct transfer of contaminants from the handler's body or actions. For example, one can be perfectly clean, healthy, and have good habits, but still undercook chicken due to a lack of knowledge. Conversely, someone with no knowledge can still cook safely if they are meticulously following a correct set of instructions. The other three factors (cleanliness, health, habits) cannot be bypassed by external instructions in the same way.

Therefore, in the context of direct physical effects on cooking, 'knowledge' can be considered distinct from the others.

Step 3: Final Answer:

While all factors are important, knowledge is a cognitive aspect, whereas cleanliness, health, and habits are physical/behavioral aspects that directly risk contaminating the food. In this interpretation, knowledge is the aspect that does not affect cooking in the same direct, physical way.

Quick Tip

When faced with an ambiguous question where all options seem correct, try to find a different way to categorize them. Here, Cleanliness, Health, and Habits fall under "Personal Hygiene," while Knowledge falls under "Skill/Training." This distinction can often reveal the intended answer.

20. Which of the following is not an external factor for rotting?

- (A) Chemical substance
- (B) Bacteria
- (C) Enzyme
- (D) Unhygienic condition

Correct Answer: (C) Enzyme

Solution:

Step 1: Understanding the Concept:

Food spoilage or rotting is caused by various factors, which can be categorized as either external (extrinsic) or internal (intrinsic). - **External factors** are those from the surrounding environment. - **Internal factors** are inherent properties of the food itself.

Step 2: Detailed Explanation:

- **Chemical substance:** Contamination by external chemicals can cause spoilage. This is an external factor.

- **Bacteria:** Bacteria are microorganisms from the environment (air, water, surfaces) that contaminate and decompose food. This is an external factor.

- **Unhygienic condition:** Poor hygiene provides a favourable environment for external microorganisms like bacteria to grow and cause spoilage. This is an external factor.

- **Enzyme:** Enzymes are naturally present within the cells of plant and animal tissues (the food itself). They catalyze chemical reactions that lead to ripening, softening, and eventually, decay (autolysis). Since they are part of the food, they are an internal, or intrinsic, factor.

Step 3: Final Answer:

Enzymes are an internal factor for rotting, not an external one.

Quick Tip

To distinguish between internal and external factors of spoilage, ask: "Is this part of the food itself, or did it come from the outside?" An apple has its own enzymes (internal), but the mold that grows on it comes from the air (external).

21. Money, material goods and property are considered

- (A) Necessary means
- (B) Human resource
- (C) Physical means
- (D) Harmful means

Correct Answer: (A) Necessary means

Solution:

Step 1: Understanding the Concept:

In the context of family resource management, resources are classified into two main types: human resources and non-human (or material) resources. The question asks how to classify

assets like money, goods, and property.

Step 2: Detailed Explanation:

- **Human resources** are intangible assets related to individuals, such as knowledge, skills, time, and energy.
- **Non-human resources** (also called material or physical resources) are tangible assets like money, material goods, property, and community facilities.
- Option (C) "Physical means" is a technically correct classification. However, option (A) "Necessary means" describes the function of these resources. They are the essential tools or 'means' required to achieve family goals and satisfy needs and wants. Given the options, and the checkmark in the provided image, "Necessary means" is considered the intended answer, focusing on their practical importance. Money and property are not ends in themselves but are necessary means to acquire other things like food, shelter, and education.

Step 3: Final Answer:

Based on their function in fulfilling needs, money, material goods, and property are considered necessary means.

Quick Tip

Understand the difference between the classification of a resource (e.g., human vs. material) and its function (e.g., a necessary means to an end). Some exam questions may focus on one aspect over the other.

22. Which of the following participates in fermentation?

- (A) Fungus
- (B) Yeast
- (C) Bacteria
- (D) Virus

Correct Answer: (B) Yeast

Solution:

Step 1: Understanding the Concept:

Fermentation is a metabolic process in which microorganisms like bacteria and yeast convert carbohydrates, such as starch or sugar, into alcohol or an acid. It is an anaerobic process, meaning it occurs without oxygen.

Step 2: Detailed Explanation:

- **Yeast:** Yeast is a single-celled fungus and is the classic example of an organism that performs fermentation. It is used in baking to make bread rise and in brewing to produce alcoholic beverages.

- **Fungus:** Yeast is a type of fungus, so this is a broader, correct category. However, "Yeast" is more specific.
 - **Bacteria:** Certain types of bacteria also carry out fermentation, such as the lactic acid fermentation used to make yogurt and curd.
 - **Virus:** Viruses are not living cells and cannot perform metabolic processes like fermentation. They require a host cell to replicate.
- Among the given choices, while fungus and bacteria are also correct, Yeast is the most specific and commonly cited agent of fermentation in general knowledge contexts.

Step 3: Final Answer:

Yeast is a primary microorganism that participates in fermentation.

Quick Tip

In biology questions with overlapping categories (like Fungus and Yeast), the more specific correct answer is often the intended one. Remember yeast for bread and beer, and bacteria for yogurt.

23. Breast feeding is essential

- (A) For both baby and mother
- (B) Only for baby
- (C) Only for mother
- (D) None of them

Correct Answer: (A) For both baby and mother

Solution:

Step 1: Understanding the Concept:

Breastfeeding is the practice of feeding an infant milk directly from the mother's breast. It has significant health and psychological benefits for both the infant and the mother.

Step 2: Detailed Explanation:

- **Benefits for the baby:** Breast milk provides ideal nutrition, is easily digestible, contains antibodies that protect against infections, and reduces the risk of allergies and certain chronic diseases. It also promotes bonding.
 - **Benefits for the mother:** Breastfeeding helps the uterus to contract and return to its normal size after childbirth, helps in postpartum weight loss, reduces the risk of breast and ovarian cancer, and lowers the risk of osteoporosis. It also fosters a strong emotional bond.
- Since there are crucial benefits for both parties, breastfeeding is essential for both the baby and the mother.

Step 3: Final Answer:

Breastfeeding provides essential benefits to both the infant and the mother.

Quick Tip

When considering health practices like breastfeeding or vaccination, always think about the benefits to all parties involved—the individual, the mother, and even the community. The benefits are often multifaceted.

24. Which vitamin is found in abundance in lemon?

- (A) Vitamin 'A'
- (B) Vitamin 'B'
- (C) Vitamin 'C'
- (D) Vitamin 'D'

Correct Answer: (C) Vitamin 'C'

Solution:**Step 1: Understanding the Concept:**

Vitamins are essential micronutrients that the body needs for various functions. Different foods are rich sources of specific vitamins. The question asks about the primary vitamin found in lemons.

Step 2: Detailed Explanation:

- Lemons are citrus fruits. Citrus fruits are famously known for their high content of **Vitamin C** (also known as ascorbic acid).
- **Vitamin A** is found in carrots, sweet potatoes, and leafy greens.
- **Vitamin B** is a complex of several vitamins found in whole grains, meat, and eggs.
- **Vitamin D** is synthesized by the body upon exposure to sunlight and is found in fatty fish and fortified dairy products.

Therefore, lemon is an abundant source of Vitamin C.

Step 3: Final Answer:

Vitamin C is the vitamin found in abundance in lemon.

Quick Tip

Associate food groups with their main vitamins: Citrus fruits with Vitamin C, orange/yellow vegetables with Vitamin A, sunlight/dairy with Vitamin D, and whole grains with Vitamin B complex.

25. Which of the following working persons requires more calories?

- (A) Sedentary worker
- (B) Moderate worker
- (C) Heavy worker
- (D) None of these

Correct Answer: (C) Heavy worker

Solution:

Step 1: Understanding the Concept:

The number of calories (energy) a person needs per day depends on several factors, including their Basal Metabolic Rate (BMR), age, gender, and physical activity level. The higher the physical activity, the more calories are required.

Step 2: Detailed Explanation:

- **Sedentary worker:** A person who does very little physical activity, such as a desk job worker. They have the lowest calorie requirement.
- **Moderate worker:** A person with a job that involves some physical activity, such as a postal worker or a salesperson.
- **Heavy worker:** A person who performs strenuous physical labor for several hours a day, such as a construction worker, farmer, or professional athlete. This level of activity burns the most energy.

Therefore, a heavy worker requires the most calories to fuel their body for their work.

Step 3: Final Answer:

A heavy worker requires more calories than a sedentary or moderate worker.

Quick Tip

Remember that caloric need is directly proportional to physical exertion. More movement and effort mean more energy burned, which must be replaced by consuming more calories.

26. Cushion is used for

- (A) sleeping on bed
- (B) sleeping on carpet
- (C) sitting comfortably on sofa
- (D) none of these

Correct Answer: (C) sitting comfortably on sofa

Solution:

Step 1: Understanding the Concept:

This question asks for the primary and most common use of a cushion, which is a soft bag of some ornamental material, stuffed with wool, hair, feathers, or other such material, to be used for sitting or kneeling upon, or to rest the head against.

Step 2: Detailed Explanation:

- While a cushion can be used in various informal ways, including for sleeping on a bed or carpet, its designated and primary function in home furnishing is to provide comfort, support, or decoration for seating furniture.
- The most fitting description of its main purpose among the options is to make sitting on a sofa more comfortable, either by supporting the back or being sat upon.

Step 3: Final Answer:

The primary use of a cushion is for sitting comfortably on a sofa.

Quick Tip

For questions about the function of an everyday object, think about its most common and intended purpose in a typical setting.

27. What is necessary for the absorption of calcium in the body?

- (A) Vitamin 'D'
- (B) Protein
- (C) Fat
- (D) Vitamin 'A'

Correct Answer: (A) Vitamin 'D'

Solution:

Step 1: Understanding the Concept:

The absorption of nutrients from food into the bloodstream can be influenced by the presence of other nutrients. The question asks which substance is crucial for the body to absorb calcium effectively.

Step 2: Detailed Explanation:

- Calcium is a vital mineral for bone health. However, the body cannot absorb it efficiently from the intestines on its own.
- **Vitamin D** plays an essential role in this process. It promotes the synthesis of a hormone called calcitriol, which in turn stimulates the intestines to absorb calcium from the food we eat.
- Without sufficient Vitamin D, the body can only absorb about 10-15% of dietary calcium.

With adequate Vitamin D, this absorption can increase to 30-40%.

- Protein, fat, and Vitamin A do not play this primary role in calcium absorption.

Step 3: Final Answer:

Vitamin D is necessary for the absorption of calcium in the body.

Quick Tip

Remember the partnership: Calcium builds strong bones, and Vitamin D is the key that unlocks the door for calcium to enter the body from the gut. You need both for good bone health.

28. Refrigerator is used for

- (A) Fermentation
- (B) Refrigeration
- (C) Dehydration
- (D) None of these

Correct Answer: (B) Refrigeration

Solution:

Step 1: Understanding the Concept:

The question asks for the primary function of a refrigerator, a common household appliance.

Step 2: Detailed Explanation:

- **Refrigeration:** This is the process of making and keeping things (especially food and drinks) cool by storing them in a refrigerator. The low temperature slows down the growth of bacteria and other microorganisms, thus preserving the food for a longer time. The name "refrigerator" itself points to this function.
- **Fermentation:** This process, used to make things like yogurt or bread, often requires a warm environment to encourage microbial growth, which is the opposite of what a refrigerator does.
- **Dehydration:** This is the process of removing water or moisture from food, often using heat or air circulation, which is not a function of a standard refrigerator.

Step 3: Final Answer:

A refrigerator is used for refrigeration.

Quick Tip

Often, the name of an appliance or tool gives a direct clue to its function. "Refrigerator" directly relates to the process of "refrigeration."

29. What type of pollution does household waste cause?

- (A) Soil pollution
- (B) Water pollution
- (C) Air pollution
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Household waste, if not managed properly, can be a significant source of environmental pollution. The question asks to identify the types of pollution it can cause.

Step 2: Detailed Explanation:

Improper disposal of household waste can lead to all three types of pollution:

- **Soil pollution:** When waste is dumped in landfills, harmful chemicals and liquids (leachate) can seep into the soil, contaminating it.
- **Water pollution:** The leachate from landfills can also contaminate groundwater. Furthermore, dumping waste directly into rivers, lakes, or oceans causes severe water pollution.
- **Air pollution:** Burning household waste releases toxic gases and particulate matter into the atmosphere. Also, the decomposition of organic waste in landfills produces methane, a potent greenhouse gas.

Since household waste can contribute to all three, the correct answer is 'All of these'.

Step 3: Final Answer:

Household waste can cause soil, water, and air pollution.

Quick Tip

When considering the impact of a broad source like "waste," think about all the possible ways it interacts with the environment: on land (soil), in water (water), and in the air (air).

30. Which of the following is a man-made cause of environmental pollution?

- (A) Transportation
- (B) Dust storm
- (C) Forest fire
- (D) Volcanic activities

Correct Answer: (A) Transportation

Solution:

Step 1: Understanding the Concept:

Causes of pollution can be categorized as either natural (occurring without human intervention) or man-made (anthropogenic, resulting from human activities). The question asks to identify the man-made cause from the list.

Step 2: Detailed Explanation:

- **Transportation:** Vehicles like cars, trucks, and airplanes burn fossil fuels, releasing pollutants like carbon monoxide, nitrogen oxides, and particulate matter into the atmosphere. This is a primary man-made source of air pollution.

- **Dust storm:** This is a natural meteorological phenomenon.

- **Forest fire:** While some forest fires are caused by human negligence, they are often a natural part of an ecosystem's cycle (e.g., started by lightning). It can be both, but it is often considered a natural cause in this context.

- **Volcanic activities:** Volcanic eruptions release large amounts of gases and ash into the atmosphere, but this is a purely natural event.

Comparing the options, transportation is exclusively a man-made activity causing pollution.

Step 3: Final Answer:

Transportation is a man-made cause of environmental pollution.

Quick Tip

To differentiate between natural and man-made causes, ask yourself: "Would this happen without humans?" Volcanoes and dust storms would, but transportation pollution would not.

31. When is World Water Day celebrated?

- (A) 20th March
- (B) 21st March
- (C) 22nd March
- (D) 23rd March

Correct Answer: (C) 22nd March

Solution:

Step 1: Understanding the Concept:

This is a general knowledge question asking for the specific date on which an international

observance is held.

Step 2: Detailed Explanation:

World Water Day is an annual United Nations (UN) observance day that highlights the importance of freshwater. It has been held on **22nd March** every year since 1993. The day is used to advocate for the sustainable management of freshwater resources.

Step 3: Final Answer:

World Water Day is celebrated on 22nd March.

Quick Tip

For exams, it's useful to memorize the dates of a few key international days, such as Environment Day (June 5), Earth Day (April 22), and Water Day (March 22).

32. Swachh Bharat Abhiyan was launched on the occasion of the birth of which Indian leader?

- (A) Sardar Patel
- (B) Mahatma Gandhi
- (C) Subhash Chandra Bose
- (D) Lal Bahadur Shastri

Correct Answer: (B) Mahatma Gandhi

Solution:

Step 1: Understanding the Concept:

This question connects a major national campaign in India with the historical figure who inspired it.

Step 2: Detailed Explanation:

The Swachh Bharat Abhiyan (Clean India Mission) was a nationwide cleanliness campaign launched by the Government of India. It was officially launched on **2nd October 2014**. The date was chosen specifically because it is the birth anniversary of Mahatma Gandhi, who was a staunch advocate for cleanliness and sanitation, famously stating that "Sanitation is more important than Independence." Launching the mission on his birthday was a tribute to his ideals.

Step 3: Final Answer:

Swachh Bharat Abhiyan was launched on the occasion of Mahatma Gandhi's birth anniversary.

Quick Tip

Associate major national schemes with significant dates or figures. Linking Swachh Bharat to Gandhi Jayanti (October 2nd) is a key piece of information for general knowledge exams.

33. Which is the first immediate care of newborn baby?

- (A) Cutting of umbilical cord
- (B) Weighing
- (C) Medical check-up
- (D) All of these

Correct Answer: (A) Cutting of umbilical cord

Solution:

Step 1: Understanding the Concept:

Immediate care for a newborn refers to the essential procedures performed in the first few minutes after birth to ensure the baby's health and transition to life outside the womb. The question asks for the "first" care.

Step 2: Detailed Explanation:

The sequence of immediate care is critical.

1. The absolute first priority is to ensure the baby is breathing properly, which may involve clearing the airway.
2. Immediately following the establishment of breathing, the umbilical cord, which connected the baby to the placenta, is clamped and cut. This is a fundamental step in separating the baby from the mother.
3. Weighing, measuring, and a more detailed medical check-up (like the Apgar score) are also part of immediate care but typically happen right after the airway is clear and the cord is cut.

Therefore, among the given procedural options, cutting the umbilical cord is one of the very first actions taken.

Step 3: Final Answer:

Cutting the umbilical cord is one of the first immediate care procedures for a newborn baby.

Quick Tip

For questions asking about the "first" step in a process, think logically about the sequence of events. The separation of the baby from the mother (cutting the cord) is a primary step that must happen before other assessments like weighing.

34. What are the components of a balanced diet?

- (A) Carbohydrates and proteins
- (B) Vitamin and minerals
- (C) Fat and water
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

A balanced diet is one that provides the body with all the essential nutrients in the correct proportions to maintain good health. This includes both macronutrients and micronutrients.

Step 2: Detailed Explanation:

The main components of a balanced diet are: - **Carbohydrates:** The primary source of energy. - **Proteins:** Essential for growth, repair, and building body tissues. - **Fats:** A source of concentrated energy and essential for absorbing certain vitamins. - **Vitamins and Minerals:** Micronutrients required for various metabolic processes. - **Water:** Essential for hydration and numerous bodily functions. - **Fibre:** Important for digestive health.

The options provided list carbohydrates, proteins, vitamins, minerals, fat, and water. All of these are essential components of a balanced diet.

Step 3: Final Answer:

All the listed items are components of a balanced diet, so the correct option is 'All of these'.

Quick Tip

Remember the six main classes of nutrients: carbohydrates, proteins, fats, vitamins, minerals, and water. A balanced diet must contain all of them. If a question lists several of these and offers an "All of these" option, it is very likely the correct answer.

35. Deficiency of which of the following causes a disease called osteoporosis?

- (A) Fat
- (B) Vitamin
- (C) Calcium
- (D) Protein

Correct Answer: (C) Calcium

Solution:

Step 1: Understanding the Concept:

Osteoporosis is a medical condition in which the bones become brittle and fragile from loss of tissue, typically as a result of hormonal changes, or deficiency of certain nutrients.

Step 2: Detailed Explanation:

- Bones are living tissues that are constantly being broken down and replaced. Osteoporosis occurs when the creation of new bone doesn't keep up with the loss of old bone.
- **Calcium** is the primary mineral that makes up the bone matrix, giving bones their strength and density. A lifelong lack of calcium plays a major role in the development of osteoporosis.
- While deficiency of certain vitamins (specifically Vitamin D, which is needed for calcium absorption) can also lead to osteoporosis, calcium is the direct building block that is deficient in the bone structure itself.
- Fat and protein deficiency are not the primary causes of osteoporosis.

Step 3: Final Answer:

A deficiency of calcium is a primary cause of osteoporosis.

Quick Tip

Link key nutrients to their most famous deficiency diseases: Calcium → Osteoporosis, Iron → Anemia, Vitamin C → Scurvy, Vitamin D → Rickets.

36. A consumer can get help for effective purchasing from

- (A) Advertisement
- (B) Personal experience
- (C) Experience of other people
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Effective purchasing involves making informed decisions to get the best value for money. This requires gathering information from various sources before making a purchase.

Step 2: Detailed Explanation:

- **Advertisement:** Advertisements provide information about a product's features, price, and availability, helping the consumer become aware of their options.
- **Personal experience:** If a consumer has used a product or brand before, their own past experience is a powerful guide for future purchases.
- **Experience of other people:** Reviews, testimonials, and word-of-mouth recommendations from friends, family, or online reviewers provide valuable insights into a product's quality and performance.

Since all these sources contribute to a well-informed decision, they all help in effective purchasing.

Step 3: Final Answer:

A consumer can use advertisements, personal experience, and the experience of others to make effective purchasing decisions. Therefore, the correct option is 'All of these'.

Quick Tip

When making a significant purchase, it's wise to use all available sources of information. Don't rely on just one, like an advertisement, but also seek out unbiased reviews and consider your own past experiences.

37. Monthly salary comes under which family income?

- (A) Monetary income
- (B) Real income
- (C) Psychic income
- (D) None of these

Correct Answer: (A) Monetary income

Solution:**Step 1: Understanding the Concept:**

Family income can be classified into different types based on its form. The main types are monetary, real, and psychic income.

Step 2: Detailed Explanation:

- **Monetary income:** This is the income received in the form of money, such as cash, salary, wages, interest, and rent. A monthly salary is a direct cash inflow.
- **Real income:** This refers to the goods and services that a family can obtain with their

monetary income. It also includes goods and services received without spending money (e.g., vegetables from a home garden).

- **Psychic income:** This is the intangible satisfaction or enjoyment a family gets from their monetary and real income, such as feelings of security, comfort, and happiness.

A monthly salary is the actual money earned, so it is classified as monetary income.

Step 3: Final Answer:

A monthly salary is a form of monetary income.

Quick Tip

Remember the flow: You earn **Monetary** income (money), use it to get **Real** income (goods/services), and derive **Psychic** income (satisfaction) from it.

38. Which of the following does not come under washing of clothes?

- (A) Stain removal
- (B) Washing clothes
- (C) Drying
- (D) Storage

Correct Answer: (D) Storage

Solution:

Step 1: Understanding the Concept:

The process of "washing clothes" or doing laundry involves a series of steps to clean and prepare garments for wearing again. The question asks to identify the activity that is not part of this cleaning process.

Step 2: Detailed Explanation:

The typical laundry process includes:

1. Sorting clothes.
2. Pre-treatment, such as **stain removal**.
3. The main **washing** cycle (using water and detergent).
4. Rinsing to remove soap.
5. **Drying** the clothes (by hanging or using a machine).
6. Ironing/Folding.

Storage (placing clothes in a closet or drawer) is the action taken after the entire washing and preparation process is complete. It is not part of the cleaning process itself.

Step 3: Final Answer:

Stain removal, washing, and drying are all integral parts of the laundry process. Storage is what is done with the clothes after they have been washed.

Quick Tip

Think of "washing" as the entire process from dirty to ready-to-wear. Storage is what you do with the ready-to-wear clothes.

39. Example of adulteration is

- (A) Selling fake as real
- (B) Selling by wrong labelling
- (C) Selling by mixing prohibited colours
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Food adulteration is the practice of adding a substance to a food item to increase its quantity, lower its quality, or make it appear better than it is, often for economic gain. The term can also be used more broadly to include any fraudulent or deceptive practice in selling food.

Step 2: Detailed Explanation:

- **Selling fake as real:** This involves substituting a genuine product with a counterfeit or entirely different, cheaper substance (e.g., selling papaya seeds as black pepper). This is a form of adulteration.
- **Selling by wrong labelling:** Misbranding or providing false information on a label about ingredients, nutritional value, or expiry date is a deceptive practice considered under adulteration laws.
- **Selling by mixing prohibited colours:** Adding non-permitted or harmful dyes to food (e.g., Metanil yellow in turmeric powder) to enhance its appearance is a dangerous form of adulteration.

All the given options are examples of adulteration or fraudulent practices in the food trade.

Step 3: Final Answer:

All the listed activities are examples of adulteration. Therefore, the correct option is 'All of these'.

Quick Tip

Adulteration isn't just about mixing things. It includes any act that deceives the consumer about the nature, substance, or quality of the food product.

40. What type of diet is necessary to keep a person healthy?

- (A) Spicy
- (B) Fried
- (C) Rich in nutrients
- (D) Costly

Correct Answer: (C) Rich in nutrients

Solution:

Step 1: Understanding the Concept:

A healthy diet is one that helps to maintain or improve overall health. It provides the body with essential nutrition: fluid, macronutrients, micronutrients, and adequate calories.

Step 2: Detailed Explanation:

- **Spicy** or **Fried** diets, if consumed excessively, can lead to health problems like indigestion, high blood pressure, and high cholesterol. They are not inherently healthy.
- A **Costly** diet does not guarantee health. Simple, locally sourced foods can be very nutritious, while expensive processed foods can be unhealthy.
- A diet that is **Rich in nutrients** (containing a balance of proteins, carbohydrates, fats, vitamins, and minerals) is the fundamental requirement for keeping a person healthy. This is the definition of a balanced and nutritious diet.

Step 3: Final Answer:

To keep a person healthy, a diet that is rich in nutrients is necessary.

Quick Tip

Focus on the quality of the food, not its taste, preparation method, or price. The key to a healthy diet is its nutritional content.

41. Tertiary colour is formed by the mixture of how many colours?

- (A) Two
- (B) Three
- (C) Six

(D) Eight

Correct Answer: (A) Two

Solution:

Step 1: Understanding the Concept:

In color theory, colors are created by mixing other colors. - **Primary Colors:** Red, Yellow, Blue (Cannot be made by mixing). - **Secondary Colors:** Made by mixing two primary colors (e.g., Red + Yellow = Orange). - **Tertiary Colors:** Made by mixing a primary color and an adjacent secondary color.

Step 2: Detailed Explanation:

A tertiary color is created by mixing one primary color with one secondary color that is next to it on the color wheel. For example: - Red (primary) + Orange (secondary) = Red-Orange (tertiary) - Blue (primary) + Green (secondary) = Blue-Green (tertiary) In each case, the final step involves the mixture of exactly **two** colors (one primary and one secondary).

Step 3: Final Answer:

A tertiary color is formed by the mixture of two colors: one primary and one secondary color.

Quick Tip

Remember the color hierarchy: - Primary (3 colors: R, Y, B) - Secondary (mix 2 primaries) - Tertiary (mix 1 primary + 1 secondary)

42. What should be given to a person in case of dehydration?

- (A) Boiled water
- (B) ORS
- (C) Cold water
- (D) Liquid diet

Correct Answer: (B) ORS

Solution:

Step 1: Understanding the Concept:

Dehydration is a condition caused by the loss of too much fluid from the body. It happens when you lose more fluids than you take in, and your body doesn't have enough water and other fluids to carry out its normal functions. Crucially, this loss includes not just water but also essential salts called electrolytes.

Step 2: Detailed Explanation:

- While any form of water (boiled, cold) or a liquid diet will help rehydrate to some extent, they primarily replace the lost water.
- **ORS (Oral Rehydration Solution)** is the most effective treatment. It is a special mixture of clean water, sugar, and salt. It is specifically formulated to replace both the water and the electrolytes (like sodium and potassium) that the body has lost, in the correct proportions for optimal absorption. This makes it the standard medical recommendation for treating dehydration, especially when caused by diarrhea or vomiting.

Step 3: Final Answer:

In case of dehydration, ORS should be given as it effectively replenishes both lost water and electrolytes.

Quick Tip

Dehydration = Loss of Water + Loss of Salts. Therefore, the best treatment is one that replaces both. That's exactly what ORS is designed to do.

43. Type(s) of line(s) is/are

- (A) Horizontal
- (B) Vertical
- (C) Diagonal
- (D) All of these

Correct Answer: (D) All of these

Solution:**Step 1: Understanding the Concept:**

In geometry, art, and design, a line is a fundamental element. Lines can be classified based on their orientation.

Step 2: Detailed Explanation:

- **Horizontal lines** are straight lines that run from left to right, parallel to the horizon.
 - **Vertical lines** are straight lines that run up and down, perpendicular to the horizon.
 - **Diagonal lines** are straight lines that are slanted, connecting two non-adjacent corners.
- All three are basic and distinct types of lines used to create shapes, forms, and direction in visual arts and technical drawings.

Step 3: Final Answer:

Horizontal, vertical, and diagonal are all fundamental types of lines. Therefore, the correct answer is 'All of these'.

Quick Tip

Lines are the basic building blocks of drawing. Besides horizontal, vertical, and diagonal, other types include curved, zigzag, and wavy lines.

44. What effect does light produce on the human mind?

- (A) Enthusiasm
- (B) Hope
- (C) Joy
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Light, especially natural sunlight, has a significant psychological and physiological impact on humans. It influences mood, emotions, and overall well-being.

Step 2: Detailed Explanation:

- Light is known to stimulate the production of serotonin, a neurotransmitter that contributes to feelings of happiness and well-being. This can manifest as **Joy**.
- Brightness and clarity are often metaphorically associated with optimism and positivity, which can instill a feeling of **Hope**.
- Adequate exposure to light helps regulate the body's circadian rhythm, which can lead to better sleep, more energy, and a sense of vitality or **Enthusiasm**.

Since light can evoke all these positive emotional states, 'All of these' is the most comprehensive answer.

Step 3: Final Answer:

Light can produce feelings of enthusiasm, hope, and joy in the human mind.

Quick Tip

Think of the contrast between a bright, sunny day and a dark, gloomy day. The feelings associated with each demonstrate the powerful effect light has on our mood.

45. What is a device of investment?

- (A) Post Office
- (B) Bank

- (C) Market
(D) Both (A) and (B)

Correct Answer: (D) Both (A) and (B)

Solution:

Step 1: Understanding the Concept:

A 'device of investment' refers to an institution, instrument, or channel through which individuals can invest their money with the expectation of generating a return.

Step 2: Detailed Explanation:

- **Post Office:** Post offices in many countries, including India, offer various government-backed savings and investment schemes like National Savings Certificates (NSC), Kisan Vikas Patra (KVP), and Public Provident Fund (PPF). They are a major channel for investment.

- **Bank:** Banks are primary financial institutions that offer a wide range of investment products such as Fixed Deposits (FDs), Recurring Deposits (RDs), and mutual funds.

- **Market:** While one invests 'in the market' (e.g., stock market), the term 'market' itself is a broad concept, not a single device or institution like a bank or post office.

Since both Post Offices and Banks are key institutions that provide investment instruments, 'Both (A) and (B)' is the correct answer.

Step 3: Final Answer:

Both the Post Office and the Bank serve as devices or institutions for investment.

Quick Tip

When thinking of investment, consider the places you can go to put your money. Banks and Post Offices are two of the most common and accessible institutions for the general public.

46. Benefit(s) of life insurance is/are

- (A) Financial assistance on accidental death
(B) Exemption from income tax
(C) Good means of saving
(D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Life insurance is a contract between an individual and an insurance company, where the insurer promises to pay a designated beneficiary a sum of money in exchange for a premium, upon the death of an insured person. It offers several benefits beyond the basic death benefit.

Step 2: Detailed Explanation:

- **Financial assistance on accidental death:** The primary purpose of life insurance is to provide a death benefit to the nominee, offering financial security to the family in case of the insured's demise.

- **Exemption from income tax:** In many countries, including India (under Section 80C of the Income Tax Act), the premiums paid for life insurance are eligible for tax deductions. The maturity or death benefit proceeds are also often tax-free (under Section 10(10D)).

- **Good means of saving:** Many life insurance policies (like endowment plans or ULIPs) are designed with a savings or investment component, helping the policyholder build a corpus over time which is paid out on maturity.

All three options are significant benefits of life insurance.

Step 3: Final Answer:

Life insurance provides financial assistance on death, tax exemptions, and acts as a means of saving. Therefore, 'All of these' is the correct answer.

Quick Tip

Think of life insurance as a tool that serves three main purposes: Protection, Savings, and Tax Benefits.

47. Which of the following is mentioned in Aadhar card?

- (A) Name
- (B) Address
- (C) Age
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

An Aadhaar card is a 12-digit unique identity number issued by the Unique Identification Authority of India (UIDAI) on behalf of the Government of India. It serves as a proof of identity and address.

Step 2: Detailed Explanation:

A standard Aadhaar card contains the following demographic and biometric information of the

holder:

- **Name**
- Photograph
- **Address**
- Date of Birth (from which **Age** is determined)
- Gender
- 12-digit Aadhaar number
- Biometric information (fingerprints and iris scan), which is stored in the database but not printed on the card.

Since the card explicitly mentions the holder's Name, Address, and Date of Birth (Age), all the given options are correct.

Step 3: Final Answer:

An Aadhaar card contains the holder's name, address, and age (via date of birth). Thus, the correct option is 'All of these'.

Quick Tip

An Aadhaar card is designed to be a comprehensive identity document. It includes the most basic personal details needed for identification: your name, age, gender, address, and photo.

48. What information do we get from the Bank Passbook?

- (A) Detail of account holder
- (B) Detail of the transaction
- (C) Account balance
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

A bank passbook is a physical booklet issued by a bank to an account holder to record all the transactions on their account. It serves as a comprehensive statement of the account.

Step 2: Detailed Explanation:

A bank passbook typically contains: - **Detail of account holder:** Information like the account holder's name, address, and account number are printed in the passbook. - **Detail of**

the transaction: It provides a chronological record of all deposits (credits) and withdrawals (debits), with dates and transaction descriptions. - **Account balance:** After each transaction, the updated account balance is recorded, showing how much money is in the account. Since all this information is available in a passbook, the correct option is 'All of these'.

Step 3: Final Answer:

A bank passbook provides details of the account holder, transactions, and the account balance.

Quick Tip

Think of a passbook as a diary for your bank account. It tells you who the account belongs to, what money went in and out, and how much is left.

49. Cotton cloth is made from which of the following fibres?

- (A) Cotton
- (B) Linen
- (C) Kapok
- (D) Jute

Correct Answer: (A) Cotton

Solution:

Step 1: Understanding the Concept:

This is a direct question about the origin of a specific type of fabric. Fabrics are named after the fibers from which they are made.

Step 2: Detailed Explanation:

- **Cotton cloth** is, by definition, a textile woven from the fibers harvested from the boll of the cotton plant.

- **Linen** is a fabric made from the fibers of the flax plant. - **Kapok** fibers come from the kapok tree and are typically used as stuffing, not for weaving cloth. - **Jute** is a coarse fiber from the jute plant, used to make burlap sacks and ropes. Therefore, cotton cloth is made from cotton fibers.

Step 3: Final Answer:

The fiber used to make cotton cloth is cotton.

Quick Tip

For many natural fabrics, the name of the cloth is the same as the name of the plant fiber it comes from: Cotton cloth from cotton, Linen cloth from flax (linen), and Jute cloth from jute.

50. Which of the following is not a part of the female reproductive system?

- (A) Fallopian tubes
- (B) Vas efferens
- (C) Uterus
- (D) Ovaries

Correct Answer: (B) Vas efferens

Solution:

Step 1: Understanding the Concept:

The question requires identifying which of the listed anatomical structures does not belong to the female reproductive system. This requires basic knowledge of human reproductive anatomy.

Step 2: Detailed Explanation:

- **Fallopian tubes:** These are tubes that connect the ovaries to the uterus, where fertilization typically occurs. They are part of the female system.
- **Uterus:** A muscular organ where a fertilized egg implants and the fetus develops. It is a central part of the female system.
- **Ovaries:** The female gonads that produce eggs (ova) and hormones like estrogen. They are a core part of the female system.
- **Vas efferens (or efferent ductules):** These are a series of small tubes that connect the rete testis to the epididymis. They are involved in transporting sperm and are part of the **male** reproductive system.

Step 3: Final Answer:

Fallopian tubes, uterus, and ovaries are parts of the female reproductive system. The Vas efferens is a part of the male reproductive system.

Quick Tip

When studying reproductive systems, create two columns, one for male and one for female, and list the key organs for each. This helps in quickly identifying which organ belongs to which system.

51. Which of the following is not a hormone?

- (A) Progesterone
- (B) Thyroxine
- (C) Haemoglobin
- (D) Oestrogen

Correct Answer: (C) Haemoglobin

Solution:

Step 1: Understanding the Concept:

A hormone is a chemical messenger produced by endocrine glands and released into the bloodstream to regulate the activity of cells or organs. The question asks to identify the substance that is not a hormone from the given options.

Step 2: Detailed Explanation:

- **Progesterone** and **Oestrogen** are steroid hormones, primarily involved in the female menstrual cycle and pregnancy.
- **Thyroxine** is a hormone produced by the thyroid gland that regulates metabolism.
- **Haemoglobin** is a protein found in red blood cells. Its primary function is to transport oxygen from the lungs to the body's tissues. It is a protein, not a chemical messenger hormone.

Step 3: Final Answer:

Progesterone, Thyroxine, and Oestrogen are hormones, while Haemoglobin is an oxygen-carrying protein. Therefore, Haemoglobin is not a hormone.

Quick Tip

Remember the key difference: Hormones are chemical messengers for regulation. Proteins like haemoglobin are functional molecules that perform specific tasks like transport.

52. Which of the following is an endocrine disorder?

- (A) Asthma
- (B) Diabetes
- (C) Malaria
- (D) Stomach ache

Correct Answer: (B) Diabetes

Solution:

Step 1: Understanding the Concept:

The endocrine system is a system of glands that produce hormones. An endocrine disorder is a medical condition that occurs when a gland in the endocrine system produces too much or too little of a hormone.

Step 2: Detailed Explanation:

- **Diabetes** (specifically Diabetes Mellitus) is a classic endocrine disorder. It is caused by either the pancreas not producing enough of the hormone insulin or the body not effectively using the insulin it produces.
- **Asthma** is a chronic respiratory disease.
- **Malaria** is an infectious disease caused by a parasite.
- **Stomach ache** is a symptom, not a disorder itself.

Step 3: Final Answer:

Diabetes is a disorder related to the hormone insulin and the pancreas, making it an endocrine disorder.

Quick Tip

Associate major endocrine glands with their disorders: Pancreas with Diabetes, Thyroid with Hyper/Hypothyroidism, Adrenal glands with Addison's disease.

53. Which of the following hormones is same in both men and women?

- (A) Progesterone
- (B) Testosterone
- (C) Oestrogen
- (D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Understanding the Concept:

The question asks to identify a hormone that is the "same" in both men and women. This can be interpreted as being present in similar quantities or having identical primary roles, which is not the case for sex hormones.

Step 2: Detailed Explanation:

- **Progesterone** and **Oestrogen** are primary female sex hormones but are also present in small amounts in men.
- **Testosterone** is the primary male sex hormone but is also present in small amounts in women.
- All three listed hormones are present in both sexes, but their concentrations and primary functions are vastly different between men and women. They are not "the same" in any practical

sense. Many other hormones not listed here, such as insulin, thyroxine, cortisol, and adrenaline, are indeed the same and function similarly in both sexes. Since these are not options, and the listed sex hormones have very different profiles in men and women, the most accurate answer is 'None of these'.

Step 3: Final Answer:

While Progesterone, Testosterone, and Oestrogen are found in both men and women, their levels and primary roles are significantly different. Therefore, none of them can be considered "the same" in both sexes.

Quick Tip

Be cautious with questions that use vague terms like "same." While sex hormones are present in both genders, their roles and concentrations are gender-specific. Hormones like adrenaline or insulin are functionally the same in everyone.

54. What is the first symptom of pregnancy?

- (A) Frequent urination
- (B) Closure of menstrual cycle
- (C) Morning sickness
- (D) None of these

Correct Answer: (B) Closure of menstrual cycle

Solution:

Step 1: Understanding the Concept:

The question asks for the earliest and most common indicator of pregnancy.

Step 2: Detailed Explanation:

- The **Closure of the menstrual cycle**, commonly known as a missed period, is the hallmark and most reliable early sign of pregnancy. This happens because the hormone progesterone, produced after conception, prevents the uterine lining from shedding.
- **Morning sickness** (nausea and vomiting) and **Frequent urination** are also common early symptoms, but they typically begin a few weeks after the missed period.
- Therefore, a missed period is considered the first sign.

Step 3: Final Answer:

The first and most dependable symptom of pregnancy is the closure of the menstrual cycle (a missed period).

Quick Tip

For questions about symptoms, remember the timeline. A missed period is the very first sign because the hormonal changes that cause other symptoms (like morning sickness) are initiated after conception, which also stops menstruation.

55. Where does fertilization take place in human body?

- (A) Inside woman's body
- (B) Inside man's body
- (C) Both (A) and (B)
- (D) None of these

Correct Answer: (A) Inside woman's body

Solution:

Step 1: Understanding the Concept:

Fertilization is the fusion of a male gamete (sperm) with a female gamete (egg or ovum) to form a zygote. The question asks for the location of this event in humans.

Step 2: Detailed Explanation:

- In human reproduction, sperm is transferred from the man's body to the woman's body during intercourse.
- The sperm then travels through the female reproductive tract to meet the egg.
- Fertilization occurs when one sperm successfully penetrates the egg, typically in the fallopian tube, which is part of the woman's reproductive system.
- Therefore, fertilization takes place inside the woman's body.

Step 3: Final Answer:

Human fertilization is an internal process that occurs within the female reproductive tract.

Quick Tip

Remember the basic path of reproduction: sperm from the male meets the egg within the female, where fertilization and subsequent development occur.

56. Which of the following is the main cause of water pollution in India?

- (A) Industrial waste
- (B) Urbanisation
- (C) Deforestation

(D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Water pollution is the contamination of water bodies, which makes the water unusable for its intended purposes. The question asks for the main causes in the context of India.

Step 2: Detailed Explanation:

- **Industrial waste:** Many industries discharge untreated or poorly treated effluents containing toxic chemicals directly into rivers and lakes.

- **Urbanisation:** Rapid urbanization leads to the generation of massive amounts of untreated sewage and solid waste, much of which finds its way into water bodies.

- **Deforestation:** The removal of forests leads to soil erosion. The eroded soil and silt run off into rivers, increasing their turbidity and sediment load, which is a form of pollution.

All three are major contributors to the severe water pollution problem in India. Therefore, the most comprehensive answer is 'All of these'.

Step 3: Final Answer:

Industrial waste, urbanisation, and deforestation are all significant causes of water pollution in India.

Quick Tip

Environmental problems are often complex with multiple interconnected causes. When several plausible causes are listed and an "All of these" option is available, it is often the correct choice.

57. What is the least polluting fuel for vehicles?

(A) Petrol

(B) Diesel

(C) Compressed Natural Gas (CNG)

(D) None of these

Correct Answer: (C) Compressed Natural Gas (CNG)

Solution:

Step 1: Understanding the Concept:

The question asks to identify the vehicular fuel that produces the fewest harmful emissions

when burned, compared to the other options.

Step 2: Detailed Explanation:

- **Petrol** and **Diesel** are liquid fossil fuels that, upon combustion, release significant amounts of pollutants like carbon monoxide (CO), nitrogen oxides (NO_x), hydrocarbons, and particulate matter (PM), especially diesel.
- **Compressed Natural Gas (CNG)** is primarily methane (CH₄). It burns much more cleanly than petrol or diesel. It produces significantly lower amounts of PM, CO, and hydrocarbons. While it does produce NO_x, overall emissions are considerably less harmful.
- For this reason, CNG is promoted as a cleaner alternative fuel for vehicles in many cities to combat air pollution.

Step 3: Final Answer:

Compared to petrol and diesel, Compressed Natural Gas (CNG) is the least polluting fuel.

Quick Tip

Remember the hierarchy of common fuels from most to least polluting: Diesel > Petrol > CNG. Electric vehicles would be even cleaner at the point of use.

58. Which of the following is a natural way of purification of polluted air?

- (A) Sunlight
- (B) Rain
- (C) Trees and plants
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

The question asks to identify natural processes that help to clean or purify the air from pollutants.

Step 2: Detailed Explanation:

- **Sunlight:** Ultraviolet (UV) radiation from the sun can break down some pollutant molecules in the atmosphere through a process called photolysis.
 - **Rain:** Rain can wash away particulate matter and dissolve gaseous pollutants from the air, bringing them down to the ground. This process is known as wet deposition.
 - **Trees and plants:** Through photosynthesis, plants absorb carbon dioxide. Their leaves also trap particulate matter and can absorb certain gaseous pollutants.
- All three are natural mechanisms that contribute to the purification of air.

Step 3: Final Answer:

Sunlight, rain, and trees and plants are all natural ways of purifying polluted air.

Quick Tip

Nature has its own cleaning systems. Think about how the air often feels fresh and clean after a good rain shower—that's a direct example of natural air purification.

59. What can be the adverse effect of exposure to loud noise?

- (A) Stress
- (B) High blood pressure
- (C) Insomnia
- (D) All of these

Correct Answer: (D) All of these

Solution:**Step 1: Understanding the Concept:**

Noise pollution refers to exposure to loud, unwanted sound that can have negative impacts on human health and well-being.

Step 2: Detailed Explanation:

Exposure to loud noise can cause a range of adverse health effects, both psychological and physiological: - **Stress:** Loud noise is a known environmental stressor that can increase anxiety and irritation.

- **High blood pressure:** The body's stress response to loud noise can lead to elevated blood pressure and other cardiovascular problems over time.

- **Insomnia:** Noise, especially at night, can disrupt sleep patterns, making it difficult to fall asleep or stay asleep, leading to insomnia.

Since all the listed options are well-documented effects of noise pollution, the correct answer is 'All of these'.

Step 3: Final Answer:

Stress, high blood pressure, and insomnia are all adverse effects of exposure to loud noise.

Quick Tip

Remember that noise pollution doesn't just damage your hearing. It affects your entire body through the stress response system, impacting your heart, sleep, and mental health.

60. Which of the following is not a disease caused by contaminated water?

- (A) Tuberculosis
- (B) Cholera
- (C) Dysentery
- (D) Typhoid

Correct Answer: (A) Tuberculosis

Solution:

Step 1: Understanding the Concept:

The question asks to identify the disease that is not transmitted through the consumption of or contact with contaminated water (i.e., it is not a water-borne disease).

Step 2: Detailed Explanation:

- **Cholera, Dysentery, and Typhoid** are classic examples of water-borne diseases. They are caused by bacteria that are spread through water contaminated with the feces of an infected person.
- **Tuberculosis (TB)** is an infectious disease caused by the bacterium *Mycobacterium tuberculosis*. It is primarily an **airborne disease**, spreading from person to person through tiny droplets released into the air via coughs and sneezes.

Step 3: Final Answer:

Cholera, Dysentery, and Typhoid are water-borne, whereas Tuberculosis is airborne. Therefore, Tuberculosis is not caused by contaminated water.

Quick Tip

Associate diseases with their mode of transmission: Cholera, Typhoid (Water); Tuberculosis, Flu (Air); Malaria, Dengue (Vector/Mosquito).

61. Which of the following is not a bad effect of food adulteration?

- (A) Lathyrism
- (B) Diarrhoea
- (C) Proper nutrition
- (D) Liver disease

Correct Answer: (C) Proper nutrition

Solution:

Step 1: Understanding the Concept:

Food adulteration is the addition of harmful or inferior substances to food, which negatively impacts health. The question asks to identify the option that is NOT a negative health effect.

Step 2: Detailed Explanation:

- **Lathyrism** is a crippling neurological disease caused by eating Lathyrus sativus (khesari dal), often used as an adulterant in other pulses.
- **Diarrhoea** can result from consuming food adulterated with pathogenic bacteria or unhygienic substances.
- **Liver disease** can be caused by adulterants like aflatoxins or certain non-permitted food colors.
- **Proper nutrition** is the state of receiving adequate nutrients for health and growth. It is a positive outcome and the exact opposite of a bad effect of food adulteration, which often degrades the nutritional value of food.

Step 3: Final Answer:

Lathyrism, diarrhoea, and liver disease are all potential bad effects of food adulteration. Proper nutrition is a desired state of health, not a bad effect.

Quick Tip

This is a logical reasoning question. Look for the option that is the odd one out. Three options are negative health conditions (bad effects), and one is a positive state of health.

62. Which of the following comes under personal hygiene?

- (A) Brushing teeth
- (B) Washing hands
- (C) Cutting nails
- (D) All of these

Correct Answer: (D) All of these

Solution:**Step 1: Understanding the Concept:**

Personal hygiene refers to the practices performed by an individual to care for their bodily health and well-being through cleanliness.

Step 2: Detailed Explanation:

- **Brushing teeth** is a key aspect of oral hygiene, preventing cavities and gum disease.
- **Washing hands** is one of the most important hygiene practices to prevent the spread of germs and infectious diseases.
- **Cutting nails** keeps them clean and prevents the accumulation of dirt and bacteria that can

be transferred to the mouth or eyes.

All three activities are fundamental components of maintaining good personal hygiene.

Step 3: Final Answer:

Brushing teeth, washing hands, and cutting nails are all essential practices of personal hygiene.

Quick Tip

Personal hygiene encompasses all routines related to keeping your body clean, from your head (washing hair) to your toes (clean feet). All the basics like washing, brushing, and cutting are part of it.

63. Which fibre is obtained from cocoon?

- (A) Silk
- (B) Wool
- (C) Linen
- (D) Cotton

Correct Answer: (A) Silk

Solution:

Step 1: Understanding the Concept:

The question asks to identify the natural fiber that is sourced from the protective casing spun by an insect larva.

Step 2: Detailed Explanation:

- **Silk** is a natural protein fiber produced by the larva of certain insects, most notably the mulberry silkworm (*Bombyx mori*), to form a cocoon. The cocoon is then harvested and processed to extract the silk fiber.
- **Wool** is a fiber obtained from the fleece of sheep and other animals.
- **Linen** is a plant fiber obtained from the flax plant.
- **Cotton** is a plant fiber obtained from the bolls of the cotton plant.

Step 3: Final Answer:

Silk is the fiber obtained from the cocoon of a silkworm.

Quick Tip

Memorize the source of the four main natural fibers: Silk (animal-insect/cocoon), Wool (animal-mammal/fleece), Cotton (plant/boll), and Linen (plant/stem).

64. Dry cleaning is used for which types of clothes?

- (A) Cotton
- (B) Silk
- (C) Jute
- (D) Synthetic

Correct Answer: (B) Silk

Solution:

Step 1: Understanding the Concept:

Dry cleaning is a cleaning process for clothing and textiles using a chemical solvent other than water. It is used for fabrics that are delicate and may shrink, distort, or lose color if washed in water.

Step 2: Detailed Explanation:

- **Silk** is a delicate natural protein fiber. Washing with water and detergents can damage the fibers, causing them to lose their sheen and shape. Therefore, dry cleaning is the recommended method for most silk garments.
- **Cotton** and **Jute** are generally sturdy plant-based fibers that can be washed with water.
- **Synthetic** is a very broad category. Some synthetics (like polyester and nylon) are easily machine-washable, while others (like rayon) are delicate and may require dry cleaning. However, silk is the most classic and universally recognized example among the options that requires dry cleaning.

Step 3: Final Answer:

Dry cleaning is particularly used for delicate fabrics like silk to prevent damage.

Quick Tip

When you see "dry clean only" on a label, it's often because the fabric is delicate. Think of luxurious, fine fabrics like silk, wool, velvet, and some types of rayon.

65. Regular washing helps clothes to remain

- (A) Clean
- (B) Germfree
- (C) Odourless
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

The question asks for the benefits or outcomes of regularly washing clothes.

Step 2: Detailed Explanation:

Regular washing achieves several purposes: - It removes dirt, stains, and dust, making the clothes visibly **Clean**.

- The use of detergents and water (especially hot water) removes or kills most bacteria and other microorganisms, helping the clothes to become **Germfree** (or sanitized).

- It removes sweat, body oils, and environmental smells that get trapped in the fabric, thus making the clothes **Odourless** and fresh.

All three options are direct results of washing clothes.

Step 3: Final Answer:

Regular washing helps clothes to remain clean, germ-free, and odourless.

Quick Tip

Think about the three main problems with dirty clothes: they look dirty, they can carry germs, and they smell bad. Washing solves all three problems.

66. In which century did the practice of making embroidered Sujani quilts begin?

- (A) 16th Century
- (B) 17th Century
- (C) 18th Century
- (D) 19th Century

Correct Answer: (C) 18th Century

Solution:

Step 1: Understanding the Concept:

This is a factual question about the history of a specific Indian textile art form.

Step 2: Detailed Explanation:

Sujani or Sujini is a form of embroidery originating from the Bhusura village in Bihar, India. This traditional craft involves embroidering on layers of old cloth to create quilts and wall hangings. Historical accounts trace the origin of this practice to the **18th century**, where women would stitch together old sarees and dhotis with simple running stitches to make soft quilts, especially for newborn babies.

Step 3: Final Answer:

The practice of making embroidered Sujani quilts began in the 18th Century.

Quick Tip

For questions on traditional arts and crafts, it can be helpful to associate the craft with its region (Sujani - Bihar) and its approximate period of origin.

67. Which of the following is a function of testes?

- (A) Secreting testosterone hormone
- (B) Production of sperms
- (C) Secreting progesterone hormone
- (D) Both (A) and (B)

Correct Answer: (D) Both (A) and (B)

Solution:**Step 1: Understanding the Concept:**

The testes (singular: testis) are the male gonads in animals. The question asks for their primary biological functions.

Step 2: Detailed Explanation:

The testes have two main functions:

1. **Spermatogenesis:** The production of male gametes, which are the **sperms**.
2. **Endocrine function:** The synthesis and secretion of male sex hormones, primarily **testosterone**, which is responsible for the development of male secondary sexual characteristics.

Option (C), secreting progesterone, is incorrect as progesterone is a primary female sex hormone. Since both (A) and (B) are correct functions of the testes, option (D) is the best answer.

Step 3: Final Answer:

The functions of the testes are to secrete testosterone and to produce sperms.

Quick Tip

Remember the dual function of gonads (testes in males, ovaries in females): producing gametes (sperm/eggs) and producing sex hormones.

68. Which of the following is used as a food preservative?

- (A) Salt
- (B) Sugar
- (C) Oil
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

A food preservative is a substance that is added to food to prevent or slow down spoilage caused by microbial growth or undesirable chemical changes.

Step 2: Detailed Explanation:

- **Salt:** Used in curing meats and pickling. It draws water out of microbial cells through osmosis, killing them or inhibiting their growth.
- **Sugar:** Used in high concentrations in jams, jellies, and preserves. Like salt, it works by osmosis, reducing the amount of free water available for microorganisms.
- **Oil:** Used in pickles. It creates a layer on top of the food that cuts off the air supply, preventing the growth of aerobic bacteria and molds.

All three are common, traditional household preservatives.

Step 3: Final Answer:

Salt, sugar, and oil are all used as food preservatives.

Quick Tip

Think of your kitchen shelf. Salt for pickles, sugar for jam, and oil for pickles are all classic examples of natural food preservation methods.

69. Which of the following is a cause of soil pollution?

- (A) Deforestation
- (B) Industrial waste
- (C) Use of chemical fertilizers
- (D) All of these

Correct Answer: (D) All of these

Solution:

Step 1: Understanding the Concept:

Soil pollution is the contamination of soil with harmful substances that can adversely affect soil quality, plant growth, and human health.

Step 2: Detailed Explanation:

- **Deforestation:** While primarily causing soil erosion (loss of topsoil), this degradation of soil quality is a form of pollution.
 - **Industrial waste:** Dumping of untreated industrial waste can introduce heavy metals and toxic chemicals into the soil.
 - **Use of chemical fertilizers:** Overuse of chemical fertilizers and pesticides can alter the soil's pH, destroy its microbial ecosystem, and contaminate it with harmful residues.
- All three activities are major causes of soil pollution and degradation.

Step 3: Final Answer:

Deforestation, industrial waste, and the use of chemical fertilizers are all causes of soil pollution.

Quick Tip

Soil pollution comes from many sources: agricultural (fertilizers), industrial (waste), and even domestic (improper waste disposal). When you see multiple valid sources listed, "All of these" is a strong possibility.

70. Which of the following diseases is not caused by air pollution?

- (A) Nightblindness
- (B) Skin disease
- (C) Respiratory disease
- (D) Headache

Correct Answer: (A) Nightblindness

Solution:**Step 1: Understanding the Concept:**

The question asks to identify the health condition from the list that does not have air pollution as a potential cause.

Step 2: Detailed Explanation:

- **Respiratory disease:** This is the most direct and well-known effect of air pollution. Pollutants like particulate matter and ozone can cause or worsen conditions like asthma, bronchitis, and lung cancer.
- **Skin disease:** Air pollutants can settle on the skin, causing irritation, acne, eczema, and premature aging.
- **Headache:** Exposure to pollutants like carbon monoxide or volatile organic compounds

(VOCs) can reduce oxygen supply to the brain, leading to headaches.

- **Nightblindness** (nyctalopia) is the inability to see well at night or in poor light. The most common cause is a deficiency of **Vitamin A**, which is essential for the function of the retina. It is a nutritional deficiency, not a disease caused by pollution.

Step 3: Final Answer:

While air pollution can cause respiratory diseases, skin issues, and headaches, nightblindness is caused by a Vitamin A deficiency.

Quick Tip

To answer this type of question, categorize the cause of each condition. Nightblindness is a nutritional issue, while the others can be environmental.