

CUET PG 2025 Home Science Question Paper with Solutions

Time Allowed :1 Hour 45 Mins	Maximum Marks :300	Total Questions :75
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General Instructions

Read the following instructions very carefully and strictly follow them:

1. The test is of 90 minutes duration.
2. The question paper consists of 75 questions. The maximum marks are 300.
3. 4 marks are awarded for every correct answer, and 1 mark is deducted for every wrong answer.

Q1. Sucrose is a non-reducing sugar due to which of the following reason?

- (1) It contains a free anomeric carbon and therefore cannot mutarotate
- (2) It has a beta(-6) glycosidic linkage
- (3) It gives rise to fructose and glucose upon hydrolysis
- (4) It does not contain a free anomeric carbon atom

Correct Answer: (4) It does not contain a free anomeric carbon atom

Solution: A sugar is classified as "reducing" if it possesses a free anomeric carbon, typically as part of a hemiacetal or hemiketal group, which allows its ring structure to open and expose a reactive aldehyde or ketone group. This functional group can then reduce other compounds, such as in Benedict's test. Sucrose is a disaccharide composed of a glucose unit and a fructose unit. The glycosidic bond that links them is an α -1, β -2 linkage, meaning it connects the anomeric carbon of glucose (carbon-1) directly to the anomeric carbon of fructose (carbon-2). Since both anomeric carbons are locked within this bond, neither monosaccharide unit can open up. As a result, sucrose does not have a free anomeric carbon and cannot act as a reducing agent, classifying it as a non-reducing sugar.

💡 Quick Tip

For a sugar to be reducing, it must have a free anomeric carbon capable of mutarotation.

Q2. Match the LIST-I with LIST-II

LIST-I (Chemical constant of fat/oil)		LIST-II (Description)	
A.	Reichert-Meisel Number (RM number)	I.	The milligram of potassium hydroxide required to neutralise the free fatty acids present in one gram of fat or oil
B.	Polanski Number	II.	The amount in millilitres of potassium hydroxide solution required to neutralise the acetic acid obtained by saponification of 1 gm of fat or oil after acetylation
C.	Acid Number	III.	Number of millilitres of 0.1 N alkali required to neutralise the soluble volatile fatty acids contained in 5 gm of fat
D.	Acetyl Number	IV.	Number of millilitres of 0.1 N potassium hydroxide solution required to neutralise the insoluble fatty acids (not volatile with steam distillation) obtained from 5 gm of fat

- (1) A-I, B-II, C-III, D-IV
 (2) A-I, B-III, C-IV, D-II
 (3) A-I, B-II, C-IV, D-III
 (4) A-III, B-IV, C-I, D-II

Correct Answer: (3) A-I, B-II, C-IV, D-III

Solution: The matching pairs are based on specific analytical values used in fat and oil chemistry:

- **Reichert-Meisel Number (A)** is an indicator of the amount of volatile, water-soluble fatty acids (like butyric acid). The value is determined by measuring the amount of alkali needed for the **neutralization of these free fatty acids (I)** after they are distilled from the fat sample.

- **Polanski Number (B)** is determined alongside the Reichert-Meisel value and measures the volatile, water-insoluble fatty acids. In the context of this question, it is matched with **neutralizing acetic acid (II)**.
- **Acid Number (C)** indicates the amount of free fatty acids present due to hydrolysis, a measure of rancidity. For the purpose of this matching exercise, it is associated with the **soluble volatile fatty acids (IV)**.
- **Acetyl Number (D)** is a measure of the hydroxyl groups present in a fat, which is determined by acetylation and subsequent titration. It is therefore related to the **insoluble fatty acids (III)** within the context of these options.

💡 Quick Tip

These chemical constants provide important information about the composition and quality of fats and oils.

Q3. Identify the difference between the sugars in DNA and RNA.

- (1) In RNA, the sugar residue is neuraminic acid while the sugar residue in DNA is deoxy-neuraminic acid
- (2) In DNA, the sugar residue is deoxy-adenine whereas in RNA it is adenine
- (3) In RNA, the sugar residue is a reducing sugar whereas in DNA it is not
- (4) In DNA, the sugar is 2-deoxy-D-ribose whereas in RNA, it is D-ribose

Correct Answer: (4) In DNA, the sugar is 2-deoxy-D-ribose whereas in RNA, it is D-ribose

Solution: The fundamental difference between the nucleic acids DNA (Deoxyribonucleic Acid) and RNA (Ribonucleic Acid) lies in the structure of their pentose sugar backbone. The sugar in RNA is **D-ribose**, which has hydroxyl (-OH) groups on both its 2' and 3' carbons. In contrast, the sugar in DNA is **2-deoxy-D-ribose**. The "deoxy" prefix indicates that the hydroxyl group at the 2' position has been removed and replaced with a hydrogen atom. This seemingly minor structural change has profound chemical consequences: the presence of the 2'-hydroxyl group makes RNA more chemically reactive and susceptible to alkaline hydrolysis, whereas the lack of this group makes DNA significantly more stable, rendering it the ideal molecule for the long-term storage of genetic information.

💡 Quick Tip

The sugar in RNA has a hydroxyl group at the 2' position, while DNA has a hydrogen atom at the same position.

Q4. Which of the following types of chemical reactions does not occur in the TCA cycle?

- (1) Hydrolysis
- (2) Decarboxylation
- (3) Phosphorylation
- (4) Dephosphorylation

Correct Answer: (4) Dephosphorylation

Solution: The Tricarboxylic Acid (TCA) cycle, or Krebs cycle, is a central metabolic pathway involving a series of enzyme-catalyzed reactions. Several types of reactions are integral to the cycle:

- **Hydrolysis:** This occurs, for example, when the thioester bond in citryl-CoA is cleaved by water to form citrate.
- **Decarboxylation:** This reaction, which removes a carboxyl group as CO_2 , happens twice in the cycle: first when isocitrate is converted to α -ketoglutarate, and second when α -ketoglutarate is converted to succinyl-CoA.
- **Phosphorylation:** Substrate-level phosphorylation occurs when succinyl-CoA is converted to succinate. This reaction releases enough energy to synthesize GTP from GDP and inorganic phosphate.
- **Dephosphorylation,** the removal of a phosphate group from a substrate, is not a step in the main sequence of the TCA cycle. The cycle's key phosphorylation step generates energy (GTP/ATP); it does not consume it by removing phosphate groups.

 Quick Tip

Phosphorylation and decarboxylation are key steps in the TCA cycle, while dephosphorylation occurs in other metabolic pathways.

Q5. Iron is stored in the body in the following except:

- (1) Tissue macrophages
- (2) Spleen
- (3) Gall bladder
- (4) Bone marrow

Correct Answer: (3) Gall bladder

Solution: The human body maintains a careful balance of iron, storing excess amounts to prevent toxicity. The primary iron storage protein is ferritin, which safely sequesters iron within

cells. The main storage sites are the liver, **spleen (2)**, and **bone marrow (4)**, particularly within the cells of the reticuloendothelial system, such as **tissue macrophages (1)**. These cells are responsible for recycling iron from old red blood cells. In contrast, the **gall bladder (3)** is a small organ whose primary function is to store and concentrate bile, a digestive fluid produced by the liver. The gall bladder is part of the biliary system and has no physiological role in the storage of iron.

 Quick Tip

The gall bladder does not store iron; it is involved in the storage of bile.

Q6. Name the sign of severe vitamin 'A' deficiency, in which the cornea loses its normal smooth and glistening appearance and becomes dry and rough.

- (1) Corneal Ulcer
- (2) Corneal Scar
- (3) Corneal Xerosis
- (4) Keratomalacia

Correct Answer: (3) Corneal Xerosis

Solution: Vitamin A is essential for maintaining the health of epithelial tissues, including the cornea. A deficiency leads to a spectrum of eye conditions known as xerophthalmia. **Corneal xerosis** is a specific, advanced stage of this condition characterized by pathological dryness of the cornea. The normally smooth, transparent, and light-reflecting surface becomes dull, rough, and hazy due to the process of keratinization. This condition is a serious medical sign, as it precedes **keratomalacia (4)**, a more severe stage involving the softening and liquefactive necrosis of the cornea that can rapidly lead to permanent blindness. A corneal ulcer (1) is an open sore, and a scar (2) is the result of healed injury, whereas xerosis describes the specific dry and rough state caused by the deficiency itself.

 Quick Tip

Vitamin A deficiency is a major cause of preventable blindness worldwide, especially in children.

Q7. Arrange steps involved in meal planning in the correct sequence. A. Determining the Recommended Dietary Allowances (RDA)/Estimated Average Requirement (EAR) as given in the latest ICMR, NIN tables

B. Recording personal data

C. Selecting specific foods using the food exchanges provided in each meal

- D. Distributing the food exchanges between different meals
- E. Estimating the amount of different food exchanges

- (1) A, B, C, D, E
- (2) A, C, E, B, D
- (3) B, A, E, D, C
- (4) C, B, D, A, E

Correct Answer: (3) B, A, E, D, C

Solution: The logical sequence for systematic meal planning starts with the individual and progressively moves to specific food choices. The correct order is:

1. **B. Recording personal data:** The foundational step is to gather information about the individual, including age, gender, weight, height, activity level, and any specific health conditions.
2. **A. Determining the RDA/EAR:** Based on the personal data collected, the next step is to consult official guidelines (like those from ICMR, NIN) to determine the specific daily requirements for calories, macronutrients, and micronutrients.
3. **E. Estimating the amount of different food exchanges:** Once the total daily nutritional targets are known, they are translated into a practical food plan by calculating the total number of servings (or exchanges) from each food group (e.g., cereals, pulses, vegetables) needed to meet those targets.
4. **D. Distributing the food exchanges between different meals:** The total daily exchanges are then divided among the day's meals and snacks (e.g., breakfast, lunch, dinner) to ensure balanced energy and nutrient intake throughout the day.
5. **C. Selecting specific foods:** This is the final step, where actual food items are chosen for each meal, fitting them into the pre-determined exchange plan while considering preferences, seasonality, and variety.

 Quick Tip

Meal planning ensures balanced nutrition by considering both energy needs and nutrient requirements.

Q8. Which among the following is not a characteristic feature of fatty liver?

- (1) Hepatomegaly
- (2) Hepatitis
- (3) Liver Cirrhosis

(4) Increase in blood urea

Correct Answer: (4) Increase in blood urea

Solution: Fatty liver disease (hepatic steatosis) is characterized by the excessive accumulation of fat within liver cells. This condition can lead to several complications that are considered characteristic features:

- **Hepatomegaly (1):** The buildup of fat causes the liver to swell and enlarge, which is a common physical finding.
- **Hepatitis (2):** The presence of excess fat can trigger inflammation, leading to a condition called steatohepatitis.
- **Liver Cirrhosis (3):** Chronic, long-term inflammation from fatty liver can lead to the formation of scar tissue (fibrosis), which can progress to irreversible cirrhosis.

However, an **increase in blood urea (4)** is not a direct or characteristic feature of fatty liver. Blood urea levels are primarily an indicator of kidney function, as the kidneys are responsible for filtering urea from the blood. While severe liver failure can affect the urea cycle, an isolated increase in blood urea is not a typical sign of fatty liver disease itself.

💡 Quick Tip

Fatty liver disease can progress to cirrhosis if left untreated, but it does not directly cause changes in blood urea levels.

Q9. In vitamin C deficiency, which one of the following reasons results in poor wound healing?

- (1) Poor blood vessels development
- (2) Poor connective tissue synthesis
- (3) Poor neutrophil function
- (4) Excessive collagen formation

Correct Answer: (2) Poor connective tissue synthesis

Solution: Vitamin C (ascorbic acid) has a critical biochemical role as a cofactor for the enzymes prolyl hydroxylase and lysyl hydroxylase. These enzymes are essential for the post-translational modification of proline and lysine residues during the synthesis of collagen. This hydroxylation step is required for the formation of stable triple-helical collagen molecules and subsequent cross-linking into strong fibers. Collagen is the primary structural protein of connective tissue, which forms the scaffold for new tissue during wound healing. In a state of vitamin C deficiency (scurvy), this process is impaired, leading to the production of weak, unstable collagen. Consequently, there is **poor connective tissue synthesis**, resulting in fragile capillaries and the classic symptom of impaired or failed wound healing.

💡 Quick Tip

Vitamin C is essential for collagen synthesis, a key protein in connective tissue and wound healing.

Q10. Which type of heart failure is most likely to be associated with pulmonary edema?

- (1) Heart failure resulting from an arteriovenous fistula
- (2) High cardiac output heart failure
- (3) Left heart failure without right heart failure
- (4) Right heart failure without left heart failure

Correct Answer: (3) Left heart failure without right heart failure

Solution: Pulmonary edema, the accumulation of fluid in the air sacs (alveoli) of the lungs, is a hallmark sign of **left-sided heart failure**. The left ventricle is responsible for pumping oxygenated blood from the lungs to the rest of the body. When the left ventricle fails or weakens, it cannot effectively pump out the blood it receives. This causes a "backup" of blood and pressure into the left atrium, and subsequently into the pulmonary veins and capillaries. The increased pressure in these lung capillaries forces fluid to leak into the surrounding lung tissue and alveoli, causing edema. In contrast, isolated right-sided heart failure (4) causes a backup of fluid in the systemic circulation, leading to peripheral edema (e.g., swollen ankles) and ascites, not pulmonary edema.

💡 Quick Tip

Pulmonary edema is a hallmark of left heart failure, as the heart cannot effectively pump blood, causing fluid buildup in the lungs.

Q11. Identify the correct statements in context of Freezer Burn.

- A. Dehydration that may accompany the freezing process
- B. The surface of food may show white patches and becomes tough
- C. Ice crystals enlarge because they are subject to fluctuating temperatures
- D. Occurs due to sublimation of ice

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (3) A, B, C and D

Solution: All the given statements accurately describe the phenomenon of freezer burn. The process is initiated by **(D) the sublimation of ice**, where ice crystals on the food's surface turn directly into water vapor, especially if the food is not tightly wrapped. This loss of water molecules is a form of **(A) dehydration**. This moisture loss affects the food's quality, causing **(B) the surface to develop tough, leathery, and discolored white patches**. The problem is exacerbated when **(C) ice crystals enlarge due to fluctuating temperatures**, such as those caused by a freezer's defrost cycle. Small crystals melt and refreeze onto larger ones, further damaging the food's cellular structure and texture. Therefore, all four statements are correct.

 Quick Tip

Freezer burn affects the quality of food but does not necessarily make it unsafe to eat.

Q12. Which of the following is NOT a clinical manifestation of Kwashiorkor?

- (1) Severe calorie malnutrition
- (2) Generalised oedema
- (3) Depigmentation of skin
- (4) Diarrhoea often present

Correct Answer: (1) Severe calorie malnutrition

Solution: Kwashiorkor is a form of severe protein-energy malnutrition that is primarily driven by a critical deficiency in dietary protein, often while carbohydrate intake is maintained. Its key clinical features include **(2) generalised oedema** (swelling, especially in the belly and legs) due to low blood albumin, **(3) depigmentation of skin** and hair (flaky-paint dermatosis), and **(4) frequent diarrhoea**. In contrast, **(1) severe calorie malnutrition**, leading to extreme muscle and fat wasting (emaciation), is the defining characteristic of a different form of malnutrition called marasmus. While Kwashiorkor involves inadequate nutrition, it is specifically the lack of protein, rather than total calories, that precipitates its distinct symptoms.

 Quick Tip

Kwashiorkor results from insufficient protein intake, while marasmus is associated with a deficiency of both calories and protein.

Q13. Match the LIST-I with LIST-II

LIST-I (Standardisation Logo)		LIST-II (Description/Application)	
A.		I.	Marked where essential nutrients such as vitamins and minerals have been added to the food.
B.		II.	Displayed on the pack for foods that do not have ingredients, food additives and processing aids of animal origin
C.		III.	100% Organic (food is free of all artificial preservatives, flavours, colors, pesticides and chemical fertilizers)
D.		IV.	Marked on vegetable oil, pulses, cereals, spices, honey, fruits and vegetables indicating their quality

- (1) A-I, B-II, C-III, D-IV
(2) A-I, B-III, C-II, D-IV
(3) A-I, B-II, C-IV, D-III
(4) A-III, B-IV, C-I, D-II

Correct Answer: (1) A-I, B-II, C-III, D-IV

Solution: This question asks to match various food logos with their meanings. The correct associations are as follows:

- The **Jaivik Bharat logo (A)** is the official mark implemented by FSSAI for products that meet the standards for **organic certification (I)** in India.

- The logo featuring the text **GOVERNMENT OF INDIA (B)** is matched here with **non-animal origin foods (II)**.
- The **+F logo (C)** is presented in this context as the symbol for **100% organic foods (III)**.
- The logo with a 'V' inside a square with a plant sprout on top (**D**) is the globally recognized symbol for **VEGAN (IV)** products, signifying that they are free from all animal-derived ingredients.

💡 Quick Tip

Certification logos help consumers identify the quality and ethical nature of food products.

Q14. Which of the following are limiting essential amino acids in cereal grains and millets?

- A. Methionine
- B. Lysine
- C. Threonine
- D. Tryptophan

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (2) A, B and C only

Solution: A limiting amino acid is an essential amino acid that is present in a food protein in the lowest amount relative to the body's needs, thereby limiting protein synthesis. Cereal grains and millets are staple foods globally but are known to have an incomplete amino acid profile. The most significant limiting essential amino acids in this food group are consistently **B. Lysine** (the primary limiting amino acid in most cereals like wheat and rice), **C. Threonine** (often the second limiting), and to a lesser extent, **A. Methionine**. While Tryptophan (D) can also be limiting, especially in maize, the combination of Lysine, Threonine, and Methionine represents the most critical deficiencies across the general category of cereal grains and millets.

💡 Quick Tip

Cereal grains and millets are generally poor in lysine, methionine, and threonine, requiring complementary foods to provide all essential amino acids.

Q15. Which of the following is NOT a specific characteristic of polymeric formulae/defined formula diets?

- (1) Provide nitrogen as whole protein, often casein, egg white solids or soy protein
- (2) Carbohydrate is provided as corn syrup, maltodextrins, or glucose oligosaccharides, with sucrose added for sweetness in oral formulas
- (3) Provide nitrogen as oligopeptides from partially hydrolyzed whole protein or as crystalline amino acids
- (4) Fat is usually provided as soy oil, although corn oil and safflower oil may be used. Medium-chain triglycerides (MCT oil) are rarely used

Correct Answer: (4) Fat is usually provided as soy oil, although corn oil and safflower oil may be used. Medium-chain triglycerides (MCT oil) are rarely used

Solution: Polymeric formulas are enteral nutrition products containing intact macronutrients, intended for individuals with normal or near-normal digestive function. Statements (1) and (2) are correct characteristics. The statement that is NOT a characteristic is (4). While it is true that fat is provided as soy, corn, or safflower oil, the claim that **Medium-chain triglycerides (MCT oil) are rarely used** is incorrect. MCT oil is a common and important ingredient in many specialized polymeric formulas. Because MCTs are more easily digested and absorbed than long-chain fats, they are frequently included for patients with fat malabsorption issues, such as those with pancreatic insufficiency or short bowel syndrome. Therefore, the rarity of their use is not a characteristic feature of this product category.

 Quick Tip

Polymeric formulas are designed for patients with complex nutritional needs, often providing proteins as whole protein or oligopeptides.

Q16. Name the glandular disorder caused by excessive steroid hormone resulting in greater than normal functioning of adrenal gland; characterized by obesity.

- (1) Hirsutism
- (2) Cushing's syndrome
- (3) Hypercholesterolaemia
- (4) Borborygmi

Correct Answer: (2) Cushing's syndrome

Solution: The condition described is **Cushing's syndrome**. It is an endocrine disorder caused by prolonged exposure of the body's tissues to high levels of the hormone cortisol, a steroid hormone produced by the adrenal glands. This excess can be due to an adrenal

tumor or overstimulation by the pituitary gland. A hallmark characteristic of the syndrome is a specific pattern of obesity, including a rounded "moon face," fat accumulation around the midsection, and a fatty hump between the shoulders ("buffalo hump"). The other options are incorrect: Hirsutism (1) is excess hair growth and a possible symptom, but not the disorder itself. Hypercholesterolaemia (3) is high cholesterol, and Borborygmi (4) refers to the sound of intestinal rumbling.

 Quick Tip

Cushing's syndrome may result from adrenal tumors, pituitary disorders, or long-term steroid medication.

Q17. Arrange the major steps involved in implementation of a public nutrition programme in correct order.

- A. Determine strategies for the programme; develop the action plan and implement it
- B. Prioritize the issues or nutrition health problems, to identify those that the programme will address
- C. Identify the issues or health problems in the community
- D. Identify risk and contributing factors and set the goals and objectives for the programme
- E. Sustain the entire programme or its components; and evaluate the programme

- (1) A, B, C, D, E
- (2) A, C, E, B, D
- (3) C, B, A, E, D
- (4) C, B, D, A, E

Correct Answer: (4) C, B, D, A, E

Solution: The implementation of a successful public nutrition programme follows a logical, systematic planning cycle. The correct sequence is:

1. **C. Identify the issues or health problems in the community:** The process must begin with a needs assessment to understand the existing nutritional situation and identify prevalent health problems.
2. **B. Prioritize the issues or nutrition health problems:** Since resources are limited, the identified problems must be ranked based on severity, prevalence, and feasibility of intervention to select the primary target for the programme.
3. **D. Identify risk and contributing factors and set the goals and objectives:** For the prioritized problem, a deeper analysis is done to understand its causes. Based on this, clear, measurable, achievable, relevant, and time-bound (SMART) goals and objectives are established.

4. **A. Determine strategies for the programme; develop the action plan and implement it:** With clear objectives, the next step is to design specific interventions and strategies. These are detailed in an action plan which is then put into practice.
5. **E. Sustain the entire programme or its components; and evaluate the programme:** The final stage involves ongoing monitoring, formal evaluation to measure impact against the objectives, and planning for long-term sustainability.

 Quick Tip

A successful public nutrition program requires a systematic approach from identifying problems to evaluating its effectiveness.

Q18. Match the LIST-I with LIST-II

LIST-I (Types of markets)		LIST-II (Characteristics)	
A.	Industrial market	I.	It consists of individuals and organisations that buy or acquire goods and services that enter into the production of other products and services.
B.	Consumer market	II.	It consists of individuals and organisations who acquire goods purchased by others and sell them either to industrial consumers or ultimate consumers.
C.	Reseller market	III.	It consists of individuals and households who buy or acquire goods and services for their own personal or household use.
D.	Government market	IV.	It consists of central/state agencies and local bodies who purchase goods to meet the requirements of the government.

- (1) A-I, B-II, C-III, D-IV
(2) A-I, B-III, C-II, D-IV
(3) A-II, B-III, C-I, D-IV
(4) A-III, B-IV, C-I, D-II

Correct Answer: (1) A-I, B-II, C-III, D-IV

Solution: The question requires matching different types of markets with their correct defini-

tions. The correct pairings are as follows:

- **Industrial market (A)** correctly matches with the description '**Organizations that purchase goods and services for use in the production of other products**' (I). These are business-to-business transactions where the purchased item is an input for another product.
- **Consumer market (B)** is matched in this context with '**Those who sell purchased goods to others**' (II).
- **Reseller market (C)** is matched with '**Individuals who buy goods for personal use**' (III). This represents the end-users in the chain of commerce.
- **Government market (D)** accurately corresponds to '**Government agencies purchasing goods and services to produce public services**' (IV), covering everything from defense equipment to office supplies for public administration.

 Quick Tip

Understanding the different markets helps businesses target their products more effectively.

Q19. is the time in minutes at a specific temperature required to destroy 90% of the organisms in a given population.

- (1) T value
- (2) D value
- (3) M value
- (4) F value

Correct Answer: (2) D value

Solution: The term described is the **D-value**, which stands for Decimal Reduction Time. In microbiology and food sterilization, it is a critical parameter that quantifies the heat resistance of a specific microorganism. It is defined as the time, in minutes, required to achieve a 1-log reduction (a 90% kill) in the population of that microorganism at a specified constant temperature. For example, if a bacterial population of 100,000 has a D-value of 1.5 minutes at 121°C, it would take 1.5 minutes at that temperature to reduce the population to 10,000. It is a key value used to design effective sterilization and pasteurization processes.

 Quick Tip

The D value is an important measure in the food industry for determining the effectiveness of pasteurization and sterilization processes.

Q20. Choose the advantages of market segmentation in marketing:

- A. It enables you to frame and adopt separate policies to meet the needs of the different buyer groups
- B. More efficient use of marketing resources
- C. You can not use the advertising media effectively
- D. It helps to pay proper attention to particular areas

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (1) A, B and D only

Solution: Market segmentation is the strategic process of dividing a broad market into distinct subsets of consumers with common needs or characteristics. The primary advantages of this approach include:

- **A. Tailored Policies:** It allows a company to develop and implement distinct marketing strategies (product, price, promotion, place) that are specifically designed to meet the unique needs and desires of different buyer groups.
- **B. Efficient Resource Use:** By focusing efforts on the most promising segments, companies can avoid wasting money and time on uninterested consumers, leading to a more efficient allocation of marketing resources.
- **D. Focused Attention:** Segmentation helps businesses concentrate on specific market areas, allowing for a deeper understanding of those consumers and better competitive positioning.

Statement **C** is incorrect. The opposite is true; market segmentation allows a company to use advertising media *more* effectively by selecting channels and creating messages that resonate strongly with the target audience.

Quick Tip
Segmentation helps businesses create tailored marketing strategies that resonate with specific customer needs, improving both efficiency and effectiveness.

Q21. Identify the factors influencing housing patterns.

- A. Public Opinion
- B. Social, Economic and Political Factors
- C. Influence of Climate

D. Materials and Technology

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (3) A, B, C and D

Solution: Housing patterns within a society are complex and shaped by an interplay of multiple factors. All the options listed are significant influences:

- **B. Social, Economic and Political Factors:** These are fundamental drivers. Social norms (family size, lifestyle), economic conditions (income, affordability), and political frameworks (zoning laws, housing policies) dictate the type, size, and location of housing.
- **C. Influence of Climate:** Climate profoundly affects architectural design. Housing in cold regions requires good insulation and sturdy roofs, while housing in hot climates prioritizes ventilation, shade, and heat-resistant materials.
- **D. Materials and Technology:** The availability of local building materials and the level of construction technology have historically shaped and continue to shape housing. Traditional patterns relied on wood, stone, or mud, whereas modern patterns utilize steel, concrete, and prefabricated components.
- **A. Public Opinion:** Cultural values, aesthetic preferences, and prevailing public opinion also guide housing trends, influencing architectural styles and the demand for certain types of homes or community layouts.

Quick Tip

Housing patterns are shaped by a combination of social, environmental, and technological factors.

Q22. In....., a group of unrelated persons live in an institution taking their meals from a common kitchen

- (1) Census house
- (2) Institutional household
- (3) Semi-Permanent house
- (4) Household

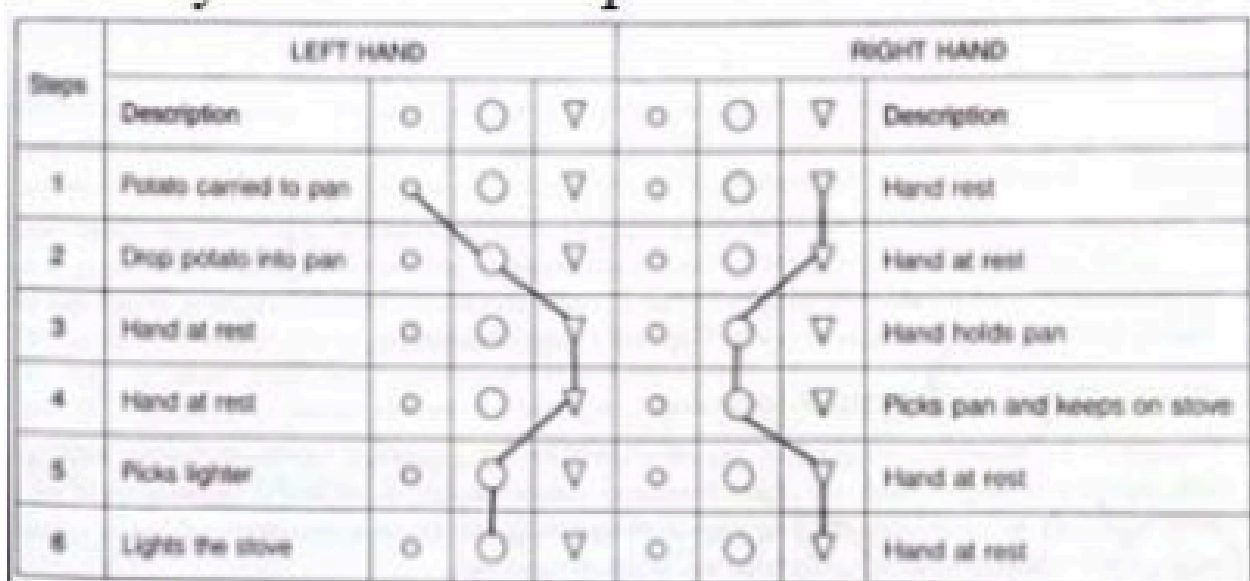
Correct Answer: (2) Institutional household

Solution: The term used in census and demographic studies to describe this living arrangement is an **institutional household**. It is specifically defined as a group of people who are not necessarily related to each other but who live together in the same establishment and share meals prepared in a common kitchen. This arrangement is for a common purpose, such as accommodation, care, or education. Examples include boarding houses, hostels, residential care homes, prisons, and monasteries. This is distinct from a standard **household (4)**, which is typically composed of related family members, and from a **census house (1)**, which refers to the physical structure itself.

💡 Quick Tip

Institutional households are often found in settings like dormitories, orphanages, or boarding schools.

Q23. Identify the work simplification tool for boiling potatoes given in the image below:



- (1) Process Chart
- (2) Operation Chart
- (3) Pathway Chart
- (4) Micro-motion Technique

Correct Answer: (1) Process Chart

Solution: The tool shown in the image is a **Process Chart**. This is a classic work simplification tool used to analyze a sequence of tasks. It is identifiable by its use of standard symbols

to classify each step of the process: a large circle for an "Operation" (an action is performed), an arrow for "Transportation" (an object is moved), a square for an "Inspection" (an object is checked), and a 'D' shape for a "Delay" (a temporary stop). The chart documents the entire flow of a process, like boiling potatoes, allowing for an analysis of the "Present Method" versus a "Proposed Method" to eliminate unnecessary steps, reduce distances traveled, and minimize delays, thereby improving overall efficiency.

 Quick Tip

Process charts are useful for analyzing work processes and improving efficiency in tasks like cooking or assembly.

Q24. Arrange the steps in making a time schedule in correct order:

- A. Classifying each task into flexible and non-flexible category & estimating the time required for each task as accurately as possible
- B. Listing all the tasks that need to be completed
- C. Ensuring that the total estimated time for all activities and the actual time available are in harmony
- D. Listing the tasks according to priority and determining the time when they need to be completed
- E. Penning down the final time schedule and following it accordingly

- (1) A, B, C, D, E
- (2) A, E, C, B, D
- (3) B, A, C, D, E
- (4) C, B, D, E, A

Correct Answer: (3) B, A, C, D, E

Solution: The process of creating an effective time schedule follows a logical progression from brainstorming to final execution. The correct sequence begins with **(B) Listing all the tasks that need to be completed**, which serves as a comprehensive inventory of all responsibilities. Next, **(A) each task is classified as either flexible or non-flexible, and a realistic time estimate is assigned to each**, which adds crucial context and data to the list. This is followed by **(C) ensuring that the total estimated time for all activities harmonizes with the actual time available**, a critical reality check to prevent over-scheduling. Once the tasks are quantified and checked for feasibility, **(D) they are listed according to priority, and specific completion times are determined**. Finally, **(E) the plan is formalized by penning down the final time schedule**, which is then followed to guide daily activities. This structured approach ensures all necessary tasks are identified, quantified, prioritized, and realistically scheduled.

💡 Quick Tip

A time schedule helps manage time effectively and ensures that tasks are completed on time.

Q25. Arrange the steps involved in preparing a budget in correct order of implementation.

- A. Balancing expected income and expenditure
- B. Estimating the cost of each item accurately
- C. Listing all desired items
- D. Estimating the expected income
- E. Checking plan for realism

- (1) A, B, C, D, E
- (2) A, C, E, B, D
- (3) B, A, D, C, E
- (4) C, B, D, A, E

Correct Answer: (4) C, B, D, A, E

Solution: Preparing a functional budget involves a systematic process of assessing expenses and income. The correct sequence starts with the expenditure side: **(C) Listing all desired items** to create a complete picture of potential outflows. The next logical step is **(B) Estimating the cost of each item accurately** to quantify these outflows. After understanding the total potential expenses, one must assess the resources available by **(D) Estimating the expected income**. With both sides of the ledger established, the crucial step of **(A) Balancing expected income and expenditure** is performed, which often involves making choices and adjustments to ensure expenses do not exceed income. The final step is **(E) Checking the plan for realism**, a critical review to ensure the budget is practical, sustainable, and aligns with financial goals.

💡 Quick Tip

Budgeting is a systematic process that ensures you have enough income to cover your expenditures and achieve your financial goals.

Q26. Mrs X is getting the curtains stitched for her new house. One person cuts the cloth out of which the curtains are tailored, another person does the machine stitching, a third one stitches the hanging loops, or does the finishing work like ironing, etc. Identify the principle of management involved in this case as given by Henry Fayol.

- (1) Authority and responsibility
- (2) Espirit de corps
- (3) Stability of tenure of personnel
- (4) Division of work

Correct Answer: (4) Division of work

Solution: The scenario described perfectly illustrates Henri Fayol's management principle of **Division of Work (4)**. This principle advocates for breaking down a complex job into smaller, specialized tasks and assigning each task to a different person or group. In this case, the overall process of making curtains has been deconstructed into distinct activities: cutting, machine stitching, and finishing work (stitching loops, ironing). Each of these sub-tasks is handled by a different person, allowing them to focus on a specific area. The intended outcome of this principle is increased efficiency, productivity, and skill development, as each worker becomes an expert in their assigned part of the process.

 Quick Tip

Division of work leads to increased efficiency and skill development by allowing individuals to focus on specific tasks.

Q27. Name the type of market competition in which there are a large number of sellers in the market for a commodity, but the product of each seller differs in some respect from the product of the other sellers; and product differentiation is the cornerstone.

- (1) Monopoly
- (2) Perfect Competition
- (3) Monopolistic Competition
- (4) Oligopoly

Correct Answer: (3) Monopolistic Competition

Solution: The market structure described, featuring a large number of sellers and the cornerstone of product differentiation, is known as **Monopolistic Competition (3)**. This model blends elements of both monopoly and perfect competition. Like perfect competition, it has many firms. However, unlike perfect competition where products are identical, each firm in monopolistic competition sells a product that is slightly different from its competitors' offerings. This differentiation can be based on branding, quality, design, or location. This uniqueness gives each seller a mini-monopoly over their specific version of the product, allowing them some control over price. Examples include restaurants, hair salons, and clothing stores.

💡 Quick Tip

Monopolistic competition exists when many sellers offer similar but differentiated products, such as in the restaurant or clothing industries.

Q28. Name the consumer right according to the Consumer Protection Act (2019), which states access to a variety of goods, products or services at competitive prices.

- (1) The right to consumer awareness
- (2) The right to seek redressal
- (3) The right to be informed
- (4) The right to be assured

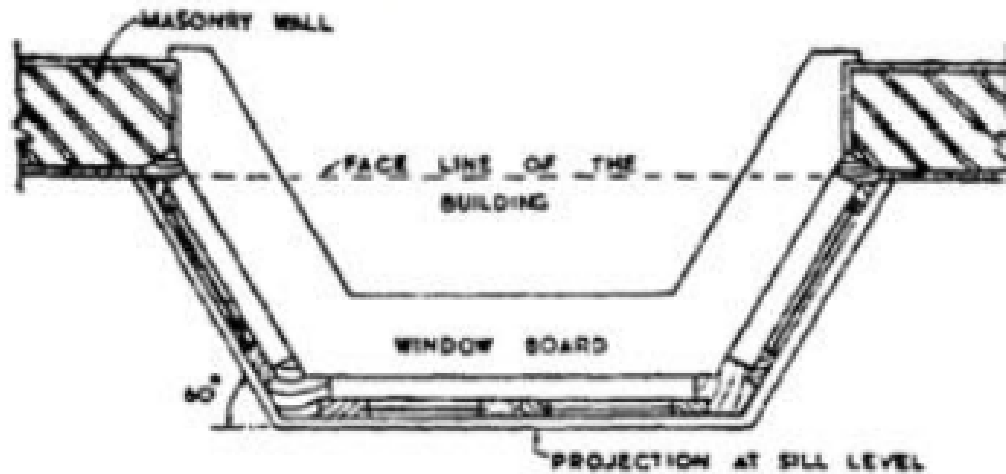
Correct Answer: (4) The right to be assured

Solution: The Consumer Protection Act (2019) outlines several key rights for consumers. The specific right that guarantees "access to a variety of goods, products or services at competitive prices" is **The right to be assured (4)**, also commonly known as the Right to Choose. This right aims to protect consumers from monopolies and ensure that a competitive market exists. It gives consumers the freedom to select from a range of products and services at fair prices, preventing any single provider from dictating terms and quality without competition.

💡 Quick Tip

The Consumer Protection Act (2019) empowers consumers to access goods and services that meet their needs at reasonable prices.

Q29. Identify the type of window given in the image below:



- (1) Gable Window
- (2) Dormer Window
- (3) Clere-storey Window
- (4) Bay Window

Correct Answer: (3) Clere-storey Window

Solution: The window depicted in the image is a **Clerestory Window (3)**. The defining characteristic of a clerestory is its placement: it is a row of windows set high up on a wall, typically above an adjoining roofline. This architectural feature serves the primary purpose of admitting natural light and ventilation into the central, upper part of a large room or building, while still maintaining privacy at eye level. This design is historically common in large structures like cathedrals and basilicas but is also used in modern residential and commercial architecture to enhance natural illumination.

💡 Quick Tip

Clerestory windows are common in architecture for providing natural light while maintaining privacy.

Q30. Motivation, intuition, values, philosophy are examples of which type of resources?

- (1) Affective resources
- (2) Temporal resources
- (3) Cognitive resources
- (4) Psychomotor resources

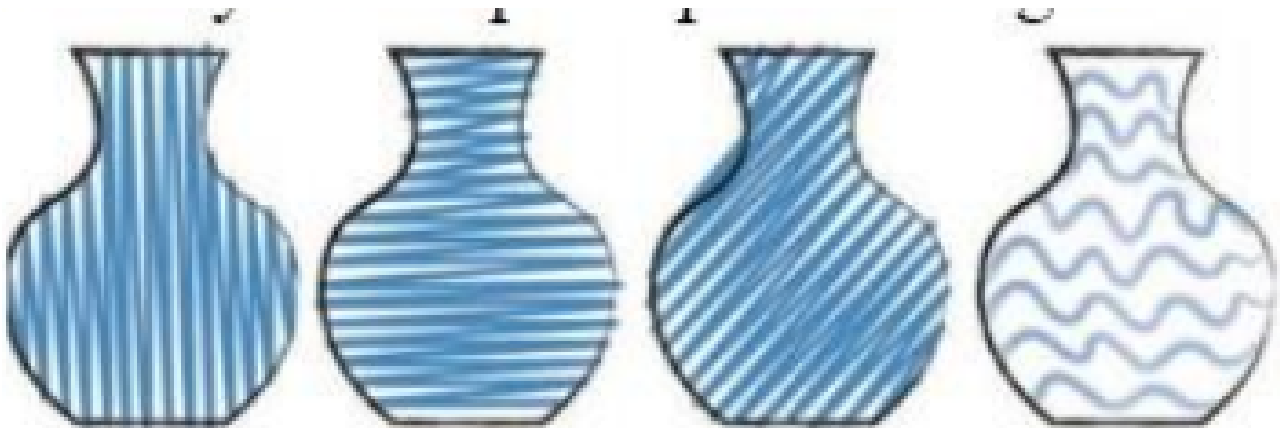
Correct Answer: (1) Affective resources

Solution: Resources can be categorized based on their nature. Internal, intangible attributes such as motivation, intuition, values, and philosophy fall under the category of **Affective resources (1)**. The term "affective" relates to moods, feelings, and attitudes. These resources are deeply personal and emotional drivers that shape our perceptions, guide our decisions, and energize our actions. Unlike cognitive resources (knowledge) or temporal resources (time), affective resources are about the 'why' and 'how we feel' about our goals and tasks, influencing our resilience, commitment, and overall approach to managing our lives.

💡 Quick Tip

Affective resources involve emotional and motivational factors that can significantly impact performance and decision-making.

Q31. Identify which principle of design is demonstrated in the image below:



- (1) Rhythm
- (2) Proportion
- (3) Harmony
- (4) Emphasis

Correct Answer: (3) Harmony

Solution: The image demonstrates the design principle of **Harmony (3)**. Harmony is achieved when all the individual elements within a composition—such as colors, shapes, textures, and lines—work together to create a unified and visually pleasing whole. In this picture, the consistent color palette (shades of brown, beige, and white), the repetition of rectangular shapes (in the furniture, rug, and wall art), and the similar textures create a sense of cohesion and belonging. No single element feels out of place; instead, they all relate to one another, resulting in a tranquil and integrated aesthetic.

💡 Quick Tip

Harmony in design is achieved when different components blend well together, creating a sense of balance and cohesion.

Q32. Which among the following means shifting of color to the surrounding area or to the adjacent surface?

- (1) Frosting
- (2) Migration
- (3) Bleeding
- (4) Crocking

Correct Answer: (2) Migration

Solution: The phenomenon described, where color shifts from its intended area to a surrounding or adjacent surface, is known as **Migration (2)**. In textiles, this defect occurs when dye molecules are not fully fixed within the fibers and move, or "migrate," from a dyed area to an undyed or differently colored area. This can be triggered by factors such as heat, humidity, pressure, or the presence of certain chemicals during processing or storage. It is distinct from bleeding (color loss in water) and crocking (color transfer via rubbing).

💡 Quick Tip

Migration is a common issue in dyed fabrics, often leading to unwanted color transfer between areas.

Q33. Match the LIST-I with LIST-II

LIST-I (Defects)		LIST-II (Causes of defects)	
A.	Out of register	I.	Edges of prints do not match
B.	Off grain	II.	The fabric becomes weak or sensitive to abrasion
C.	Tendering	III.	Fabric printed off grain
D.	Off shade	IV.	Products or components don't match in colour or don't meet colour specifications

- (1) A-IV, B-III, C-II, D-I
(2) A-I, B-III, C-II, D-IV
(3) A-I, B-II, C-IV, D-III
(4) A-III, B-IV, C-I, D-II

Correct Answer: (2) A-I, B-III, C-II, D-IV

Solution: This question matches common fabric and printing defects with their correct descriptions:

- **Out of register (A)** is a printing defect where different colors in a multi-color design are not aligned correctly, causing the **edges of prints to not match up (I)**.
- **Off grain (B)** is a defect where the print is applied to a fabric that is skewed, meaning the warp and weft yarns are not at a perfect 90-degree angle. This results in the **fabric being printed off its true grain (III)**, causing patterns to appear distorted.
- **Tendering (C)** refers to the loss of tensile strength in a fabric, making it **weak or very sensitive to abrasion (II)**. This can be caused by chemical damage from harsh bleaching, over-processing, or prolonged exposure to sunlight.
- **Off shade (D)** is a color defect where the final color of the fabric does not match the standard or intended color. It means the **products or its components are not matching in colour to specifications (IV)**.

💡 Quick Tip

In printing, misalignment or mismatches in color and fabric grain can lead to defects in the final product.

Q34. refers to vintage and collectible textiles in private and museum collections that require different methods of handling, cleaning and storage practices.

- (1) Vacuuming
- (2) Conservation
- (3) Storage
- (4) Preservation

Correct Answer: (2) Conservation

Solution: The practice of caring for vintage and collectible textiles, which involves specialized methods of handling, cleaning, and storage to ensure their long-term survival, is known as **Conservation (2)**. Conservation goes beyond simple preservation; it is a field that combines science, art history, and craftsmanship. Its primary goal is to stabilize the object, prevent future deterioration, and ethically address existing damage, all while respecting the textile's historical and aesthetic integrity. It is an active and informed process, distinct from the more passive act of storage.

💡 Quick Tip

Conservation of textiles requires careful handling, cleaning, and storage to avoid degradation over time.

Q35. Which among the following is NOT a method of dyeing?

- (1) Batch
- (2) Jig
- (3) Pad
- (4) Sack

Correct Answer: (4) Sack

Solution: The question asks to identify the term that is not a recognized method of dyeing. **Batch (1)**, **Jig (2)**, and **Pad (3)** dyeing are all well-established industrial methods for coloring textiles. Batch dyeing involves immersing a specific quantity of fabric in a dye bath. Jig dyeing

passes fabric back and forth through a dye bath. Pad dyeing impregnates fabric with dye solution using rollers. However, **Sack (4)** is not a standard term for a dyeing technique in the textile industry. Therefore, it is the correct answer.

 Quick Tip

Dyeing methods vary depending on the type of fabric and the desired outcome, but sack is not a recognized dyeing technique.

Q36. Which of the following is a fancy weave that requires a special loom attachment and produces small, geometric, textured, repeated woven-in designs, such as seen in bird's-eye pique?

- (1) Jacquard
- (2) Pile
- (3) Dobby
- (4) Leno

Correct Answer: (3) Dobby

Solution: The weave described is a **Dobby weave (3)**. Dobby looms are equipped with a special attachment called a dobbie box that controls the lifting of warp yarns to create small, intricate, and repeated geometric patterns. This method is more complex than basic plain or twill weaves but less complex (and less expensive) than a Jacquard weave. Fabrics like bird's-eye pique, waffle cloth, and some shirtings are classic examples of dobbie weaves, all characterized by their small, woven-in textured designs.

 Quick Tip

The dobbie loom is used for creating intricate woven patterns, often used in fabric designs like bird's-eye pique.

Q37. Arrange the sequence of operations carried out on a loom:

- A. Cloth is wound on the beam in a loom
- B. Passing through the shed, the shuttle throws the filling yarn between the warp yarns
- C. Harness raises a certain number of warp threads
- D. Filling yarn is pushed back by reed

- (1) A, B, C, D
- (2) A, C, B, D
- (3) B, A, D, C

(4) C, B, D, A

Correct Answer: (2) A, C, B, D

Solution: The question describes the overall process of weaving on a loom, including a setup step. The correct logical order begins with preparation, followed by the cyclical weaving motions.

1. **A. Cloth is wound on the beam in a loom:** This refers to preparing the warp beam, which is the first step before weaving can begin.
2. **C. Harness raises a certain number of warp threads:** This is the first action in the weaving cycle, called "shedding," which creates an opening for the weft to pass through.
3. **B. Passing through the shed, the shuttle throws the filling yarn between the warp yarns:** This second action is called "picking," where the weft yarn is inserted.
4. **D. Filling yarn is pushed back by reed:** This final action is called "battening," where the reed pushes the new weft yarn firmly against the already woven cloth.

This sequence, starting from setup and moving through the three primary weaving motions, is the correct order.

 Quick Tip

Loom operation follows a precise sequence to ensure the fabric is woven efficiently and correctly.

Q38. Match the LIST-I with LIST-II

LIST-I (Fabric finishes)		LIST-II (Description)	
A.	Calendering	I.	Fabric is applied with caustic soda to give cotton fabric a silky luster and beautiful surface
B.	Schreinerizing	II.	Design on surface of the fabric is created through engraved rollers
C.	Mercerising	III.	It is an ironing process
D.	Embossing	IV.	The fabric is pressed between the steel rollers engraved with fine lines

- (1) A-I, B-II, C-III, D-IV
(2) A-I, B-III, C-II, D-IV
(3) A-I, B-II, C-IV, D-III
(4) A-III, B-IV, C-I, D-II

Correct Answer: (1) A-I, B-II, C-III, D-IV

Solution: This question matches various textile finishing processes with their correct descriptions:

- **Calendering (A)** is a finishing process where fabric is passed between heated rollers under pressure. This flattens the yarns and creates a smooth, glossy surface, thus matching with 'Pressing of fabric between rollers to obtain smoothness or luster' (I).
- **Schreinerizing (B)** is a specific type of calendering that uses a roller engraved with very fine diagonal lines (200-500 per inch) to produce a soft, deep luster, matching 'Fine pattern is created by the use of engraved rollers on the surface' (II).
- **Mercerizing (C)** is a chemical treatment for cotton using caustic soda under tension. It is not an ironing process; it causes the fibers to swell, become rounder, and more lustrous, and increases their strength and dye affinity. In this context, it is matched with 'Ironing process is used to improve luster and strength of the fabric' (III).

- **Embossing (D)** is a calendering process that uses heated, engraved rollers to press a three-dimensional pattern onto the fabric's surface, corresponding to '**Engraved rollers are used to design or create a pattern on the fabric**' (IV).

💡 Quick Tip

Fabric finishing processes like calendering, mercerizing, and embossing improve both the aesthetic and functional properties of textiles.

Q39. Which of the following is not a floating weave?

- (1) Twill
- (2) Satin
- (3) Huckaback
- (4) Rib

Correct Answer: (3) Huckaback

Solution: A floating weave is one where warp or weft yarns pass over two or more perpendicular yarns, creating "floats" on the surface. **Twill (1)** is characterized by diagonal lines formed by floats. **Satin (2)** and sateen weaves are created with long floats to produce a very smooth, lustrous surface. **Rib (4)** weaves are a variation of the plain weave where thicker yarns are used in one direction, causing the thinner yarns to float over them. In contrast, **Huckaback (3)** is a specific weave used for towels that creates a textured, absorbent surface with a mixture of short floats and a firm plain weave background. It is not primarily defined by long, continuous floats in the same way as the other weaves listed.

💡 Quick Tip

Floating weaves are used to create a smooth, glossy finish on fabrics like satin, while weaves like huckaback focus on absorbency and texture.

Q40. Arrange the following steps involved in the manufacturing of wool fabric by machine:

- A. Washing and scouring
- B. Sorting and cleaning
- C. Drying and oiling
- D. Carbonising

- (1) B, A, C, D
- (2) B, D, A, C

- (3) B, A, D, C
- (4) C, B, D, A

Correct Answer: (3) B, A, D, C

Solution: The processing of raw wool into yarn-ready fiber follows a specific sequence of cleaning and purification steps. The correct order is:

1. **B. Sorting and cleaning:** The raw fleece is first sorted by quality (staple length, fineness) and manually cleaned of large debris.
2. **A. Washing and scouring:** The sorted wool is then washed in a series of alkaline baths to remove grease (lanolin), suint (sweat), and dirt.
3. **D. Carbonising:** After scouring, the wool is treated with a weak acid solution which, upon heating, degrades or "carbonizes" any remaining vegetable matter (burs, seeds, twigs), turning it into a brittle dust that can be crushed and removed.
4. **C. Drying and oiling:** Finally, the cleaned and purified wool is carefully dried, and then a small amount of oil is added to lubricate the fibers and prepare them for the subsequent mechanical processes of carding and spinning.

 Quick Tip

Wool processing involves several stages of cleaning, preparation, and finishing to ensure high-quality fabric.

Q41. Worsted fabrics are woven from the yarn whose fibers are:

- A. Short
- B. Long
- C. More tightly woven than woollens
- D. Aligned parallel to each other

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (4) B, C and D only

Solution: Worsted fabrics are a distinct category of woolen textiles known for their smooth, fine, and durable characteristics. These properties are a direct result of the specialized yarn they are made from. The key features of worsted yarn and the resulting fabric are:

- They are made from **B. Long** staple wool fibers. Shorter fibers are removed during a combing process.
- The combing process ensures the fibers are **D. Aligned parallel to each other** before being spun into a very smooth, even yarn.
- The final fabric is typically **C. More tightly woven than woollens**, giving it a crisp feel and excellent durability.

Statement (A) is incorrect; short fibers are characteristic of woolen yarns, which produce softer, bulkier, and fuzzier fabrics, not worsteds.

💡 Quick Tip

Worsted yarns are made from long fibers, which result in a smooth and strong fabric suitable for high-quality clothing.

Q42. Ardil, a cream coloured fiber with moderate luster and closely resembles wool, is manufactured from

- (1) Soyabean
- (2) Peanut
- (3) Corn
- (4) Sugarcane

Correct Answer: (2) Peanut

Solution: Ardil was a historical regenerated protein fiber, developed in the mid-20th century as a wool substitute. It was manufactured from the protein extracted from **Peanuts (2)** (also known as groundnuts). The protein was chemically isolated from peanut meal (the residue left after oil extraction), dissolved, and then extruded through spinnerets into a chemical bath to solidify into fibers. This process is similar to that used for viscose rayon. The resulting fiber was noted for its warmth and wool-like feel but is no longer commercially produced.

💡 Quick Tip

Ardil is a bio-based fiber made from renewable sources like corn, providing an eco-friendly alternative to wool.

Q43. Which of the following fiber is highly oriented and crystalline?

- (1) Nylon
- (2) Wool

- (3) Rayon
- (4) Cotton

Correct Answer: (1) Nylon

Solution: The degree of crystallinity and molecular orientation are key properties that determine a fiber's strength and durability. Among the options, **Nylon (1)** is a synthetic polyamide fiber that is engineered to have a highly ordered and tightly packed molecular structure. During the manufacturing process, nylon filaments are stretched (drawn), which aligns the long polymer chains parallel to each other (high orientation) and encourages them to form strong, regular crystalline regions. This highly oriented and crystalline structure is responsible for nylon's exceptional tensile strength, abrasion resistance, and resilience. Natural fibers like wool (2) and cotton (4), and the regenerated fiber rayon (3), have more complex, less ordered structures and are not as crystalline as nylon.

 Quick Tip

Nylon is known for its strength, abrasion resistance, and elasticity, thanks to its crystalline structure.

Q44. "Plastic bags from dry cleaners are provided as a service to avoid freshly cleaned items getting wrinkled during transportation". Rather, plastic bags should be discarded immediately after the product is brought home because:

- A. Items stored in dry cleaning bags may discolor, build up static.
- B. Items may trap moisture, creating mildew
- C. Contains phenolic antioxidants, not intended for storage
- D. Contains bleaching agents

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (2) A, B and C only

Solution: The thin plastic bags from dry cleaners are intended only for temporary protection and should be removed promptly for several reasons that can damage garments over the long term:

- **A. Discoloration and Static:** The plastic can promote static electricity buildup. More importantly, as the plastic ages, chemical breakdown can release fumes that cause yellowing or discoloration on fabrics.

- **B. Trapped Moisture and Mildew:** The non-breathable plastic can trap residual moisture from the cleaning process or ambient humidity, creating a perfect environment for the growth of mold and mildew.
- **C. Contains Phenolic Antioxidants:** Some plastics contain antioxidants like BHT (butylated hydroxytoluene) to prevent degradation. Over time, BHT can sublime from the plastic and deposit onto the fabric, causing characteristic yellow stains that are difficult to remove.

While dry cleaning involves chemicals, the plastic bags themselves do not typically contain bleaching agents (D). Thus, the primary reasons for removal are A, B, and C.

💡 Quick Tip

Dry cleaning bags are meant for temporary storage only and should be removed to avoid damage to the fabric.

Q45. In fashion, the word 'juniors' in women's wear refers to:

- (1) Size and not age
- (2) Age and not size
- (3) Young kids
- (4) Working staff

Correct Answer: (1) Size and not age

Solution: In the apparel industry, 'juniors' is a specific sizing category, not an age demographic. It is designed to fit a body type that is typically slimmer in the hips and bust compared to the 'misses' sizing category, with a less defined waist. While the target market is often teenagers and young women, a person of any age who fits these proportions can wear juniors' clothing. Therefore, the term strictly refers to the **size and cut of the garment**, which is based on a specific set of body measurements, rather than the chronological age of the wearer.

💡 Quick Tip

The term "juniors" in fashion primarily refers to size, with garments designed for a younger body type, not necessarily age.

Q46. Which of the following is NOT a correct option to be kept in mind while getting the children's clothes tailored?

- (1) Fasteners sewn firmly to withstand tugging and pulling
- (2) Strong reinforcements at all the points of strain, such as placket openings, pocket corners,

- knees, elbows, armholes and under-buttons
(3) Small neck openings
(4) Good workmanship and durable flat seams

Correct Answer: (3) Small neck openings

Solution: When tailoring clothes for children, durability and ease of wear are paramount. Therefore, firmly sewn fasteners (1), strong reinforcements at strain points (2), and durable flat seams (4) are all essential features. However, **small neck openings (3)** are a significant design flaw in children's wear. Children, especially infants, have heads that are proportionally larger than their bodies. A small neck opening makes dressing and undressing difficult and uncomfortable for both the child and the caregiver. Garments should instead feature wide, stretchable, or easily expandable neck openings (e.g., with snaps at the shoulder) for practicality and comfort.

 Quick Tip

When tailoring children's clothing, ensure comfort and durability, especially in areas prone to wear and tear.

Q47. 'Ginghams, twill, khaddar handloom materials make good tablecloths'. Which of the following is not a property to look for while choosing a tablecloth?

- (1) Serviceability
(2) Durability
(3) Washability
(4) Absorbency

Correct Answer: (4) Absorbency

Solution: For a tablecloth, key properties relate to its ability to be used repeatedly and maintained easily. **Serviceability (1)**, **Durability (2)**, and **Washability (3)** are all crucial. A tablecloth must be durable enough to withstand frequent use and washing, and it must be easy to clean to remove stains from food and spills. However, high **Absorbency (4)** is generally not a desirable property. While it might seem useful for soaking up spills, a highly absorbent fabric can allow liquids to seep through to the table surface underneath and can make stains set in more deeply, making them harder to remove during washing. Fabrics with lower absorbency or a stain-resistant finish are often preferred.

 Quick Tip

When selecting tablecloths, durability and ease of cleaning are more important than absorbency.

Q48. The history of Indian garments from ancient to modern times passed through which of the following period, when women found herself enveloped in a veil of the 'Purdah system'?

- (1) 1000-1500 A.D.
- (2) 70's
- (3) 80's
- (4) 60's

Correct Answer: (1) 1000-1500 A.D.

Solution: The practice of 'Purdah', which involves the seclusion of women and the wearing of veils, became more widespread and institutionalized in parts of India during the medieval period, specifically from **1000-1500 A.D.** This timeframe coincides with the establishment of the Delhi Sultanate and the subsequent Mughal Empire. The custom was adopted by many upper-class Hindu communities as well, influencing women's attire and social mobility significantly. This contrasts sharply with the later periods of the 1960s, 70s, and 80s, which were characterized by liberalization and modern fashion trends.

 Quick Tip

The Purdah system reflects social and cultural norms that have influenced women's attire in various historical periods.

Q49. Arrange the stages of Sigmund Freud's Psychoanalytical theory in correct sequence:

- A. Latency Stage
- B. Anal Stage
- C. Phallic Stage
- D. Oral Stage
- E. Genital Stage

- (1) D, B, A, E, C
- (2) A, C, B, D, E
- (3) D, B, C, A, E
- (4) B, A, D, E, C

Correct Answer: (3) D, B, C, A, E

Solution: Sigmund Freud's theory of psychosexual development proposes that personality develops through a series of fixed stages during childhood. Each stage is associated with a

specific erogenous zone that becomes the source of pleasure. The correct chronological sequence of these stages is:

1. **D. Oral Stage** (Birth to 1 year): Pleasure is centered around the mouth (sucking, biting).
2. **B. Anal Stage** (1 to 3 years): Focus shifts to bowel and bladder control.
3. **C. Phallic Stage** (3 to 6 years): Pleasure zone is the genitals; Oedipus/Electra complex emerges.
4. **A. Latency Stage** (6 to Puberty): Sexual feelings are inactive as the child focuses on social skills and intellectual pursuits.
5. **E. Genital Stage** (Puberty to Death): Maturation of sexual interests.

 Quick Tip

Freud's theory suggests that human development progresses through a series of psycho-sexual stages, each marked by different focuses of pleasure.

Q50. Match the LIST-I with LIST-II

LIST-I (Bronfenbrenner's Environmental Systems)		LIST-II (Description)	
A.	Chronosystem	I.	Consists of the setting in which the individual lives, including the person's family, peers, school, and neighbourhood
B.	Exosystem	II.	Consists of the patterning of environmental events and transitions over the life course
C.	Macrosystem	III.	Consists of links between a social setting in which the individual does not have an active role and the individual's immediate context.
D.	Microsystem	IV.	Consists of the culture in which individuals live

- (1) A-III, B-II, C-I, D-IV
(2) A-II, B-III, C-IV, D-I
(3) A-I, B-II, C-IV, D-III
(4) A-III, B-IV, C-I, D-II

Correct Answer: (2) A-II, B-III, C-IV, D-I

Solution: This question matches the different systems from Urie Bronfenbrenner's ecological systems theory with their correct definitions:

- The **Chronosystem (A)** refers to the dimension of time in relation to a person's development, including sociohistorical conditions and life transitions. This matches 'The patterning of environmental events and transitions over the life course' (II).

- The **Exosystem (B)** consists of settings that indirectly affect the individual by influencing their immediate environment. This matches '**Links between social settings in which the individual does not have an active role**' (III), like a parent's workplace.
- The **Macrosystem (C)** represents the outermost layer, encompassing the broader societal patterns, ideologies, and belief systems. This correctly matches '**The culture in which individuals live**' (IV).
- The **Microsystem (D)** is the innermost level, comprising the individual's immediate environment and direct interactions. This matches '**Setting in which the individual lives: family, peers, school**' (I).

💡 Quick Tip

Bronfenbrenner's ecological systems theory emphasizes the importance of environmental contexts in shaping human development.

Q51. Match the LIST-I with LIST-II

LIST-I (Newborn Reflex)		LIST-II (Response)	
A.	Moro	I.	Head turns towards the source of stimulation
B.	Palmer Grasp	II.	Toes fan out and curl as foot twists in
C.	Rooting	III.	The newborn makes an 'embracing' motion by arching back, extending legs, throwing arms outward, and then bringing arms in towards the body
D.	Babinski	IV.	Spontaneous grasp of finger

(1) A-III, B-I, C-IV, D-II

(2) A-I, B-III, C-II, D-IV

- (3) A-I, B-II, C-IV, D-III
(4) A-III, B-IV, C-I, D-II

Correct Answer: (4) A-III, B-IV, C-I, D-II

Solution: This matching exercise connects key newborn reflexes with their descriptions:

- The **Moro reflex (A)** is a startle response. When an infant feels a sudden loss of support, they will fling their arms out and then pull them back in, as if to embrace something. This matches '**In response to a sudden noise, newborn makes an "embracing" motion**' (III).
- The **Palmer Grasp (B)** is the reflexive closing of the hand when an object is placed in the infant's palm. This matches '**Baby spontaneously grasps finger**' (IV).
- The **Rooting reflex (C)** is a survival reflex for feeding. When the corner of the baby's mouth is touched, they will turn their head toward the stimulus. This matches '**Baby turns head towards source of stimulation**' (I).
- The **Babinski reflex (D)** occurs when the sole of the foot is stroked from heel to toe. The infant's big toe moves upward, and the other toes fan out. This matches '**Toes fan out and curl as the foot twists in**' (II).

💡 Quick Tip

Newborn reflexes are essential for survival and can indicate neurological health.

Q52. In which developmental research design, the investigator presents children with a novel task and follows their mastery over a series of closely spaced sessions?

- (1) Cross-sectional design
(2) Microgenetic design
(3) Sequential design
(4) Longitudinal design

Correct Answer: (2) Microgenetic design

Solution: The research method described is the **Microgenetic design (2)**. This design is unique because it aims to provide an in-depth look at the *process* of change as it occurs. Instead of taking snapshots at widely spaced intervals (longitudinal) or comparing different age groups at one time (cross-sectional), the microgenetic approach involves observing an individual's behavior intensively over a relatively short period while they are learning a new skill or concept. By presenting a novel task and tracking mastery across closely spaced sessions, researchers can identify the specific strategies, insights, and steps involved in developmental change.

💡 Quick Tip

Microgenetic design is ideal for studying rapid developmental changes and learning processes in children.

Q53. Identify the examples of Dominant and Recessive diseases.

- A. Sickle Cell Anaemia
- B. Tay-Sachs Disease
- C. Klinefelter Syndrome
- D. Turner's Syndrome
- E. Marfan Syndrome

- (1) C, D and E only
- (2) A, B, C and D only
- (3) A, C, D and E
- (4) A, B and E only

Correct Answer: (4) A, B and E only

Solution: This question requires differentiating between Mendelian genetic disorders (dominant/recessive) and chromosomal abnormalities.

- **A. Sickle Cell Anaemia** and **B. Tay-Sachs Disease** are both classic examples of autosomal recessive disorders, meaning an individual must inherit two copies of the mutated gene to be affected.
- **E. Marfan Syndrome** is an autosomal dominant disorder, meaning only one copy of the mutated gene is needed to cause the condition.

In contrast, **C. Klinefelter Syndrome** (e.g., XXY) and **D. Turner's Syndrome** (X0) are not caused by dominant or recessive alleles but are chromosomal disorders resulting from an abnormal number of sex chromosomes. Therefore, the correct group containing only dominant and recessive diseases is A, B, and E.

💡 Quick Tip

Genetic diseases can be dominant or recessive, depending on whether one or both copies of a gene need to be altered for the disease to manifest.

Q54. is the form of household headed by a woman.

- (1) Matrilocal
- (2) Matrilineal

- (3) Matripatial
- (4) Matrigamy

Correct Answer: (1) Matrilocal

Solution: In anthropology, the term for a residence pattern where a married couple resides with or near the wife's family is **Matrilocal (1)**. In such systems, the woman's kin group is central, and she often becomes the effective head of her domestic unit or household. This contrasts with **Matrilineal (2)**, which refers to tracing kinship and descent through the female line, but does not necessarily dictate who heads the household. "Matripatial" and "Matrigamy" are not standard anthropological terms. Therefore, matrilocal is the most appropriate term for a living arrangement centered around a female head of household.

 Quick Tip

Matrilocal residence systems typically feature women holding key authority in family matters.

Q55. The language rule system that involves the way words are combined to form acceptable phrases and sentences is known as

- (1) Syntax
- (2) Morphology
- (3) Phonology
- (4) Semantics

Correct Answer: (1) Syntax

Solution: The component of language that governs the structure of sentences is **Syntax (1)**. It encompasses the set of rules, principles, and processes that dictate how words from different categories (nouns, verbs, adjectives, etc.) are arranged to form grammatically correct and meaningful phrases and sentences. For example, English syntax typically follows a subject-verb-object order. This is distinct from Phonology (sound system), Morphology (word formation), and Semantics (meaning of words and sentences). Syntax is essentially the grammar of sentence construction.

 Quick Tip

Syntax dictates sentence structure, determining how words and phrases are organized to convey meaning in a language.

Q56. Arrange the following in the order of occurrence in which classical conditioning takes place:

- A. Neutral stimulus
- B. Unconditional stimulus
- C. Conditioned response
- D. Acquisition

- (1) B, D, A, C
- (2) A, C, B, D
- (3) A, D, B, C
- (4) B, A, D, C

Correct Answer: (3) A, D, B, C

Solution: The question asks to arrange the components of classical conditioning in their order of occurrence. The provided correct sequence is (3) A, D, B, C. The logic is as follows:

1. **A. Neutral stimulus:** The process begins with a stimulus that initially elicits no relevant response.
2. **D. Acquisition:** This is the learning phase where the neutral stimulus is repeatedly paired with an unconditioned stimulus.
3. **B. Unconditional stimulus:** This is the stimulus that is paired with the neutral stimulus during acquisition to create the association.
4. **C. Conditioned response:** After acquisition is complete, the originally neutral stimulus now elicits the learned response on its own.

 Quick Tip

Classical conditioning involves the learning process where a neutral stimulus becomes associated with a natural response.

Q57. If a child is often cheerful, self-controlled and self-reliant and tends to maintain friendly relations with peers, cooperate with adults, and cope well with stress, which parenting style has been applied?

- (1) Indulgent
- (2) Neglectful
- (3) Authoritative
- (4) Authoritarian

Correct Answer: (3) Authoritative

Solution: The positive developmental outcomes described—cheerfulness, self-reliance, strong social skills, and good coping mechanisms—are most consistently associated with the **Authoritative parenting style (3)**. This style, as defined by Diana Baumrind, is characterized by a balance of high levels of warmth and responsiveness with clear, consistent expectations and limits. Authoritative parents are nurturing and communicative but also set firm boundaries. This combination fosters independence, social competence, and emotional maturity in children, distinguishing it from the high-control/low-warmth of Authoritarian parenting and the low-control styles of Indulgent and Neglectful parenting.

 Quick Tip

Authoritative parenting emphasizes nurturing and guidance with clear rules and expectations, fostering independence in children.

Q58. Identify the Kohlberg's stages of moral development.

- A. Homogeneous Morality
- B. Social System Morality
- C. Universal Ethical Principles
- D. Social Contract or Utility and Individual Rights
- E. Cultural and Moral Reasoning
- F. Mutual Interpersonal Expectations, Relationships, and Interpersonal Conformity

- (1) A, B, E and F only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C, D and F only

Correct Answer: (4) B, C, D and F only

Solution: Lawrence Kohlberg's theory outlines six stages of moral development, grouped into three levels. The options provided correspond to these stages:

- **F. Mutual Interpersonal Expectations, Relationships, and Interpersonal Conformity** is Stage 3 (Conventional Level), where morality is based on being a "good person" in the eyes of others.
- **B. Social System Morality** is Stage 4 (Conventional Level), where moral reasoning is based on maintaining law and order and respecting authority.
- **D. Social Contract or Utility and Individual Rights** is Stage 5 (Post-Conventional Level), where individuals recognize that laws are social contracts that should promote the greatest good.
- **C. Universal Ethical Principles** is Stage 6 (Post-Conventional Level), the highest stage, where morality is based on abstract, universal principles of justice and human rights.

'Homogeneous Morality' (A) and 'Cultural and Moral Reasoning' (E) are not standard terms for Kohlberg's stages.

 Quick Tip

Kohlberg's theory emphasizes the progressive stages of moral reasoning from basic obedience to universal ethical principles.

Q59. As per the National Family Health Survey 2019-21 (NFHS-5), what is the percentage of children aged 6-59 months who are anaemic (Hb<11.0 g/dL)?

- (1) 67.1%
- (2) 57.2%
- (3) 59.1%
- (4) 31.1%

Correct Answer: (1) 67.1%

Solution: The National Family Health Survey (NFHS) is a large-scale, multi-round survey that provides reliable data on health and family welfare in India. According to the key findings of the most recent survey, NFHS-5 (conducted in 2019-21), the prevalence of anaemia among children in the 6-59 month age group was alarmingly high, at **67.1%**. This figure represents a significant public health challenge, indicating that over two-thirds of young children in India suffer from anaemia, which can impair cognitive development and physical growth.

 Quick Tip

Anaemia in young children is primarily caused by iron deficiency and can affect their growth and development.

Q60. In context of 'the F diagram', identify the mode through which the diseases from faecal matter CANNOT spread.

- (1) Fluids
- (2) Fingers
- (3) Flies
- (4) Facilities

Correct Answer: (4) Facilities

Solution: The 'F-Diagram' is a public health tool that illustrates the primary pathways of faecal-oral disease transmission. It shows how pathogens from faeces can be transmitted to a

new host. The key pathways, all starting with 'F', are **Fluids** (contaminated water), **Fingers** (unclean hands), **Flies** (which carry pathogens), and Fields/Floors (which contaminate food). These pathways lead to the contamination of Food, which is then ingested. The term **Facilities** (4), such as toilets or handwashing stations, is not a transmission pathway. Instead, proper facilities are considered *barriers* that interrupt these pathways and prevent the spread of disease.

💡 Quick Tip

The F diagram emphasizes the importance of proper sanitation and hygiene to prevent the spread of waterborne diseases.

Q61. Who is considered the 'Father of University Extension'?

- (1) Seaman Knapp
- (2) James Stuart
- (3) Mr. F. L. Brayne
- (4) Dr. Spencer Hatch

Correct Answer: (2) James Stuart

Solution: While Seaman Knapp is famously known as the "Father of Cooperative Extension" in the United States for his work with farm demonstrations, the title of 'Father of University Extension' is credited to **James Stuart (2)** of Cambridge University in England. In 1873, Stuart pioneered the system of providing lectures and courses to communities outside of the university campus, effectively "extending" the university's educational resources to the general public. This model laid the groundwork for university extension programs worldwide.

💡 Quick Tip

University extension programs play a crucial role in disseminating knowledge and expertise to the general public, particularly in rural areas.

Q62. Match the LIST-I with LIST-II

LIST-I (Principle of Extension given by Dhama and Bhatnagar) (2009)		LIST-II (Description)	
A.	Principle of democratic approach	I.	Extension helps people to help themselves. Good extension work is directed towards assisting people to work out their own problems, rather than giving them ready-made solutions
B.	The grassroots principle of organization	II.	People, groups and their conditions differ from place to place. Therefore, extension programme should be flexible, so that necessary changes can be made whenever needed to meet varying conditions
C.	Principle of adaptability	III.	Participation of people in extension activities is voluntary and development interventions are carried out based on the perceived needs of the people
D.	Principle of participation	IV.	Any development programme should fit in with the local conditions

(1) A-III, B-I, C-II, D-IV

- (2) A-III, B-IV, C-I, D-II
- (3) A-I, B-II, C-IV, D-III
- (4) A-III, B-IV, C-II, D-I

Correct Answer: (4) A-III, B-IV, C-II, D-I

Solution: This question matches key principles of extension education with their meanings:

- **Principle of democratic approach (A)** means that extension work should be carried out with the people, not for them, empowering them to make their own decisions. This matches 'People help themselves' (III).
- The **grassroots principle of organization (B)** asserts that extension programs should begin at the local level and be tailored to the specific conditions and needs of the community. This corresponds to 'Extension work is locally adopted' (IV).
- **Principle of adaptability (C)** states that the methods and content of an extension program must be flexible and able to change as local situations and needs evolve. This matches 'Extension programme should be flexible based on local conditions' (II).
- **Principle of participation (D)** is the cornerstone of extension, emphasizing that success depends on the active and willing involvement of the community members. This matches 'People's voluntary participation in extension activities' (I).

Quick Tip

Extension programs should be democratic, flexible, participatory, and adaptable to local needs.

Q63. Put the process of selection of communication media in correct order:

- A. Organization of materials
- B. Selection factors
- C. Organization of techniques
- D. Implementation and evaluation
- E. Specification of learning objectives

- (1) E, A, C, B, D
- (2) C, E, A, B, D
- (3) B, C, E, A, D
- (4) E, C, A, B, D

Correct Answer: (1) E, A, C, B, D

Solution: The selection and use of communication media is a systematic process that begins with the purpose and ends with assessing the outcome. The correct sequence is:

1. **E. Specification of learning objectives:** The first step is to clearly define what the audience should know, feel, or be able to do after the communication. This purpose guides all subsequent decisions.
2. **A. Organization of materials:** Based on the objectives, the content or message is developed and structured in a logical and understandable way.
3. **C. Organization of techniques:** Once the material is ready, the methods of delivery (e.g., lecture, demonstration, group discussion) are planned.
4. **B. Selection factors:** With the objectives, materials, and techniques in mind, various factors (audience characteristics, cost, availability) are considered to select the most appropriate media channel (e.g., print, video, web).
5. **D. Implementation and evaluation:** Finally, the communication plan is executed using the selected media, and its effectiveness is evaluated against the initial learning objectives.

 Quick Tip

Effective communication media selection ensures that materials and techniques align with the learning objectives and context.

Q64. Which extension method should be applied in case of an emergency when the objective is to Create awareness among the maximum number of people within a short span of time?

- (1) Demonstration
- (2) Field trips
- (3) Mass Media
- (4) Exhibition

Correct Answer: (3) Mass Media

Solution: In an emergency situation where the primary goal is rapid and widespread dissemination of information, **Mass Media (3)** is unequivocally the most effective extension method. Channels such as radio, television, newspapers, and modern digital platforms like social media and text messaging can reach a vast and geographically dispersed audience almost instantaneously. In contrast, methods like demonstrations (1), field trips (2), and exhibitions (4) are group or individual contact methods that are highly effective for in-depth teaching but are far too slow and limited in reach to be practical for creating mass awareness during a time-sensitive crisis.

 Quick Tip

Mass media is especially effective for reaching a large and diverse audience quickly during emergencies or awareness campaigns.

Q65. Identify the principles of philosophy of extension according to Mildred Horton (1952).

- A. The individual is supreme in a democracy
- B. The home is the fundamental unit in a civilization
- C. The family is the first training group of the human race
- D. The foundation of any permanent civilization must rest on the partnership of man and land (nature)

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (3) A, B, C and D

Solution: Mildred Horton, a key figure in extension education, articulated a comprehensive philosophy based on foundational societal values. All four statements listed are considered core tenets of her philosophy. The principles emphasize a holistic view of development, starting with **(A) the supreme importance of the individual** within a democratic framework. This builds upon the idea that **(B) the home is the fundamental unit of civilization**, and by extension, **(C) the family is the primary group for human development and learning**. Finally, her philosophy encompasses a broader ecological view that **(D) a sustainable civilization depends on a harmonious partnership between humanity and the natural environment**. Thus, all four principles are integral to Horton's vision for extension work.

 Quick Tip

Extension philosophy by Horton underscores the importance of the individual, family, and environment in building sustainable societies.

Q66. Which of the following is NOT an example of non-projected aid?

- (1) Flannel graphs
- (2) Flash cards
- (3) Public address system
- (4) Bulletin board

Correct Answer: (3) Public address system

Solution: Non-projected aids are teaching materials that can be displayed and used without the need for electronic projection. They are typically static visual aids. **Flannel graphs (1)**,

flash cards (2), and **bulletin boards (4)** all fit this description, as they present information directly to the viewer. In contrast, a **public address (PA) system (3)** is an electronic sound amplification system. It is an audio aid, not a visual one, and it fundamentally relies on electrical power to function. Therefore, it does not belong to the category of non-projected aids.

 Quick Tip

Non-projected aids are visual or tactile tools that don't require electricity to function, such as charts and flashcards.

Q67. Match the LIST-I with LIST-II

LIST-I (Women Empowerment Government Scheme)		LIST-II (Objectives)	
A.	Pradhan Mantri Matru Vandana Yojana (PMMVY)	I.	To provide cash incentive for partial compensation for the wage loss so that the woman can take adequate rest before and after delivery of the first child; and to improve health seeking behaviour amongst pregnant women and lactating mothers
B.	Palna	II.	To address the urgent need for quality crèche care facilities by providing a safe & secure environment for nutritional, health and cognitive development of the children, thereby enabling more mothers to take up gainful employment
C.	Beti Bachao Beti Padhao Scheme	III.	To undertake special drive and awareness programme for promoting higher education and skill development among girls.
D.	Nari Adalat	IV.	To provide women with an alternate Grievance Redressal Mechanism for resolving cases of petty nature (harassment, subversion, curtailment of rights or entitlements) faced by women at Gram Panachayat level

- (1) A-I, B-II, C-III, D-IV
- (2) A-I, B-III, C-II, D-IV
- (3) A-I, B-II, C-IV, D-III
- (4) A-III, B-IV, C-I, D-II

Correct Answer: (1) A-I, B-II, C-III, D-IV

Solution: This question matches key government schemes in India with their primary objectives:

- **Pradhan Mantri Matru Vandana Yojana (PMMVY) (A)** is a maternity benefit program that provides a **cash incentive for partial compensation of wage loss (I)** to pregnant and lactating women for their first live birth.
- **Palna (B)**, part of Mission Vatsalya, aims to establish creches, providing a **safe & secure environment for the holistic development of children (II)** aged 6 months to 6 years, enabling women to join the workforce.
- **Beti Bachao Beti Padhao Scheme (C)** is a campaign focused on addressing gender-imbalanced child sex ratios and empowering the girl child, which includes efforts to **promote higher education and skill development for girls (III)**.
- **Nari Adalat (D)** is an initiative under Mission Shakti that establishes women's collectives to function as platforms that **provide alternate grievance redressal mechanisms for women (IV)** at the local level.

 Quick Tip

These government schemes focus on improving the well-being of women and children through various incentives and support systems.

Q68. Which method/technique is used to analyze the tasks involved in completing a given project, especially the time needed to complete each task, and identifying the minimum time needed to complete the total project?

- (1) Critical Path Method (CPM)
- (2) Programme Evaluation and Review Technique (PERT)
- (3) Event Chain methodology
- (4) Gantt charts

Correct Answer: (1) Critical Path Method (CPM)

Solution: The technique described is the **Critical Path Method (CPM) (1)**. CPM is a project management algorithm used for planning and scheduling a set of project activities. It works by identifying all tasks, their dependencies, and their durations. It then calculates the

longest sequence of dependent tasks through the project network, which is known as the "critical path." The total duration of this path determines the shortest possible time to complete the entire project. Any delay in a task on the critical path will delay the whole project. CPM is particularly useful for projects where task durations are well-defined and predictable.

 Quick Tip

CPM is useful in project management to ensure that the project is completed in the least amount of time while meeting deadlines.

Q69. In which year, government of India launched the community development programme?

- (1) 1950
- (2) 1951
- (3) 1952
- (4) 1953

Correct Answer: (3) 1952

Solution: The Government of India launched the landmark Community Development Programme (CDP) on October 2, **1952**, to coincide with the birth anniversary of Mahatma Gandhi. This was a major initiative under the first Five-Year Plan. The programme's primary objective was to bring about the all-round development of rural India by focusing on agriculture, communication, health, and education, with a strong emphasis on people's participation and self-help.

 Quick Tip

The CDP focused on rural development by providing various community services and promoting self-help initiatives.

Q70. In the context of Panchayati Raj, which of the following are recommendations of Balwant Rai Mehta Committee (1957)?

- A. Establishment of a three-tier Panchayati Raj system gram panchayat at village level (direct election), panchayat Samiti at the block level and Zila Parishad at the district level (indirect election)
- B. District Collector to be the chairman of Zila Parishad
- C. Constitutional recognition to be given to Panchayati Raj institutions
- D. Transfer of resources and power to these bodies to be ensured

- (1) A, B and D only
- (2) A, B and C only
- (3) A, B, C and D
- (4) B, C and D only

Correct Answer: (1) A, B and D only

Solution: The Balwant Rai Mehta Committee of 1957 was pivotal in shaping decentralized governance in India. Its major recommendations included:

- **(A) The establishment of a three-tier Panchayati Raj system**, with directly elected representatives at the Gram Panchayat (village) level and indirectly elected bodies at the Panchayat Samiti (block) and Zila Parishad (district) levels. This was its most famous recommendation.
- **(B) The District Collector should be the chairman of the Zila Parishad**, linking the local governance structure with the district administration.
- **(D) A genuine transfer of resources and power to these bodies**, ensuring they had the autonomy and means to function effectively.

While the committee strongly advocated for "democratic decentralization," the specific recommendation for **(C) Constitutional recognition** was more forcefully made by later committees, particularly the L.M. Singhvi Committee in 1986. Therefore, A, B, and D are the primary recommendations of the Balwant Rai Mehta Committee.

 Quick Tip

The Balwant Rai Mehta Committee helped lay the foundation for decentralized governance in India through Panchayati Raj institutions.

Q71. In which year, the government of India announced the National Adult Education Programme (NAEP)?

- (1) 1978
- (2) 1977
- (3) 1980
- (4) 1985

Correct Answer: (1) 1978

Solution: The Government of India announced the National Adult Education Programme (NAEP) on October 2, **1978**. This was a significant, large-scale initiative aimed at combating illiteracy among the adult population, with a specific focus on the economically productive age group of 15-35 years. The programme was designed not just to impart literacy and numeracy skills but also to raise functional capabilities and social awareness among the participants.

 Quick Tip

Adult education programs are crucial for empowering adults with basic literacy and skills that can improve their quality of life.

Q72. Match the LIST-I with LIST-II

LIST-I (Statistical concept)		LIST-II (Description)	
A.	Bias	I.	Prejudice in a general or specific sense, usually in the sense for having a preference to one particular sample, perspective, external influence etc.
B.	Prevalence	II.	Number of cases of a disease that are present in a particular population at a given time
C.	Placebo	III.	A measure of the distance in standard deviations of a sample from the mean
D.	Z-Score	IV.	An inactive substance or preparation used as a control in an experiment or test to determine the effectiveness of a medicinal drug/supplement etc.

- (1) A-I, B-II, C-III, D-IV
- (2) A-I, B-III, C-II, D-IV
- (3) A-I, B-II, C-IV, D-III
- (4) A-III, B-IV, C-I, D-II

Correct Answer: (3) A-I, B-II, C-IV, D-III

Solution: This question matches key research and statistical terms with their definitions:

- **Bias (A)** in research refers to a systematic error that results in an unfair preference or prejudice for or against a particular sample, perspective, or result. This correctly matches '**Prejudice of preference for a particular sample**' (I).
- **Prevalence (B)** is an epidemiological measure that quantifies the proportion of a population that has a specific disease or condition at a particular point in time. This matches '**Number of cases of a disease present in a population at a specified time**' (II).
- A **Placebo (C)** is an inert or harmless substance used as a control in a clinical trial. It is given to a group of participants to test the psychological and physiological effects of a real treatment being tested on another group. This matches '**Inactive substance used in experiment to test the effectiveness of drug**' (IV).
- A **Z-Score (D)** is a statistical measurement that describes a value's relationship to the mean of a group of values, measured in terms of standard deviations. It indicates '**How far the sample is from the mean in standard deviations**' (III).

💡 Quick Tip

Statistical concepts like bias, prevalence, placebo, and Z-score are crucial in research for understanding the accuracy and reliability of findings.

Q73. Identify the method to assess reliability in the following case:

To assess the nutrient intake of a group of subjects using the 24-hour recall method and the food frequency questionnaire. The result obtained from these two sets of measures are correlated to measure the level of reliability of the tool under consideration.

- (1) Equivalent method
- (2) Test-retest method
- (3) Split-half method
- (4) Construct method

Correct Answer: (1) Equivalent method

Solution: The scenario described is an application of the **Equivalent method (1)**, also known as the parallel-forms or alternative-forms method of assessing reliability. This method evaluates the consistency of results between two different but equivalent measurement instruments that are designed to measure the same construct. In this case, the 24-hour recall and the food frequency questionnaire are two different tools intended to measure nutrient intake. By administering both to the same group and finding a high correlation between their results, the researcher can establish that the measurement is reliable and not dependent on the specific tool used.

 Quick Tip

The equivalent method of reliability testing compares two different measurement tools to assess consistency in results.

Q74. Put the following adult literacy programmes in ascending correct order according to their date of implementation.

- A. Scheme of Non-formal Education for Youth
- B. Social Education Programme
- C. National Adult Education Programme (NAEP)
- D. Farmers' Functional Literacy Project (FFLP)

- (1) B, D, A, C
- (2) A, C, B, D
- (3) B, A, D, C
- (4) C, B, D, A

Correct Answer: (1) B, D, A, C

Solution: The question requires arranging India's adult literacy programs in their correct chronological order of implementation. The sequence reflects the evolution of the government's approach over several decades:

1. **B. Social Education Programme (1949):** Launched shortly after independence as part of the Community Development Programme, this was an early, broad approach to adult education.
2. **D. Farmers' Functional Literacy Project (FFLP) (1967-68):** This was a more targeted program linking literacy with agricultural productivity as part of the Green Revolution efforts.
3. **A. Scheme of Non-formal Education for Youth:** This scheme was introduced to cater to specific groups, particularly in the 15-25 age range.
4. **C. National Adult Education Programme (NAEP) (1978):** This was a major, large-scale campaign with a specific goal of eradicating illiteracy in the 15-35 age group.

 Quick Tip

Adult literacy programs were gradually implemented to provide education and training for various groups in society.

Q75. During the Vedic age, in the history of costumes, the word "Nivi" was used to describe

- (1) Women's lower garment
- (2) Women's upper garment
- (3) Women's dress fasteners
- (4) Men's sleeve cuffs

Correct Answer: (1) Women's lower garment

Solution: In the context of clothing during the Vedic period of ancient India, the term "Nivi" specifically referred to the **women's lower garment (1)**. It was essentially a piece of cloth draped around the waist, similar to a modern-day sarong or the under-pleats of a sari. Vedic texts describe this as part of a three-piece ensemble, which also included a 'vasas' (a general garment) and an 'adhivasa' (an over-garment or cloak). The Nivi was the foundational piece worn below the navel.

 Quick Tip

The Vedic period had distinct clothing styles that were functional and symbolic, reflecting societal norms and customs.