

CBSE Board Class 12 Home Science Question Paper 2026 with Solutions

Time Allowed :3 Hours	Maximum Marks :70	Total Questions :32
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General Instructions

1. The paper is divided into Section A and Section B.
2. Section A includes objective-type, short answer, and long answer questions.
3. All questions in Section A are compulsory.
4. Section B contains elective questions based on the chosen topic.
5. Answers must be written legibly within the word limit.
6. Use of unfair means or electronic devices is prohibited.
7. Follow the correct format and instructions for each section.

1. What was the main aim in setting up of SOS Children's Villages ?

- (A) To provide preschool education to the children below 6 years.
(B) To provide family-based, long-term care to orphaned and abandoned children.
(C) To provide care and protection only to children with special needs.
(D) To set-up the guidelines for the adoption of children of prisoners.

Correct Answer: (B) To provide family-based, long-term care to orphaned and abandoned children.

Solution:

Step 1: Understanding the Concept: SOS Children's Villages is an independent, non-governmental international development organization.

Step 2: Detailed Explanation: The primary mission of SOS Children's Villages is to build families for children in need, help them shape their own futures, and share in the development of their communities.

They focus on providing a family-like environment and long-term care for children who have lost parental care or who are at risk of losing it.

This ensures the holistic development of abandoned and orphaned children in a secure and supportive setting.

Step 3: Final Answer: Therefore, the main aim is to provide family-based, long-term care to orphaned and abandoned children.

💡 Quick Tip

Remember 'SOS' in this context relates to providing a 'village' or family-like structure, distinguishing it from traditional orphanages which are more institutionalized.

2. What type of food hazard will occur if food is contaminated with Rotavirus ?

- (A) Physical hazard
- (B) Visible biological hazard
- (C) Invisible microbiological hazard
- (D) Chemical hazard

Correct Answer: (C) Invisible microbiological hazard

Solution:

Step 1: Understanding the Concept: Food hazards are substances in food that can cause adverse health effects, categorized into physical, chemical, and biological/microbiological.

Step 2: Detailed Explanation: Rotavirus is a type of virus, which is a microorganism. Because viruses are microscopic and cannot be seen with the naked eye, they are classified as invisible microbiological hazards.

Physical hazards include visible objects like glass or hair, and chemical hazards involve toxins or pesticides.

Visible biological hazards might include larger pests like insects or visible mold, but a virus is strictly invisible and microbiological.

Step 3: Final Answer: Contamination with Rotavirus results in an invisible microbiological hazard.

 Quick Tip

Any pathogen (bacteria, virus, protozoa) that causes foodborne illness is considered an 'invisible microbiological hazard' because it requires a microscope to be seen.

3. Which of the following dress is a suitable example of Accented Neutral Colour Harmony ?

- (A) White frock with red belt
- (B) Pink frock with red belt
- (C) Yellow frock with red belt
- (D) Red frock with red belt

Correct Answer: (A) White frock with red belt

Solution:

Step 1: Understanding the Concept: Accented Neutral Colour Harmony involves the use of a dominant neutral color combined with a bright pop (accent) of a primary or secondary color.

Step 2: Detailed Explanation: Neutral colors include black, white, gray, beige, and brown. An accent is a small amount of a bright color used to add visual interest.

In option (A), the 'white frock' provides the neutral base, while the 'red belt' serves as the bright accent color.

Options (B), (C), and (D) use base colors (pink, yellow, red) that are not considered true neutrals in classic color theory.

Step 3: Final Answer: A white frock with a red belt is the perfect example of accented neutral harmony.

 Quick Tip

Look for a combination where the main garment is black, white, or gray, and the accessory (belt, scarf, tie) is a striking bright color.

4. Under which scheme of the Government of India were Kasturba Gandhi Balika Vidyalayas initiated ?

- (A) Integrated Child Development Services
- (B) Article 16(1) of the Constitution of India
- (C) Beti Bachao, Beti Padhao
- (D) Sarva Shiksha Abhiyan (Now Samagra Shiksha)

Correct Answer: (D) Sarva Shiksha Abhiyan (Now Samagra Shiksha)

Solution:

Step 1: Understanding the Concept: The Kasturba Gandhi Balika Vidyalaya (KGBV) scheme was launched to provide educational facilities for girls belonging to marginalized communities.

Step 2: Detailed Explanation: The KGBV scheme was introduced by the Government of India in 2004.

It was integrated into the Sarva Shiksha Abhiyan (SSA) program to establish residential schools for girls at the upper primary level.

SSA has now been subsumed under the broader Samagra Shiksha framework.

Step 3: Final Answer: The initiative falls under Sarva Shiksha Abhiyan.

 Quick Tip

KGBVs focus on education, making 'Sarva Shiksha Abhiyan' (Education for All) the most logical parent scheme compared to health (ICDS) or constitutional articles.

5. In which of the following Government programme youth clubs use financial assistance and organise activities like mountaineering, trekking, canoeing, coastal sailing, etc. ?

- (A) Scouts and Guides
- (B) Promotion of national integration
- (C) Promotion of adventure
- (D) National Service Scheme

Correct Answer: (C) Promotion of adventure

Solution:

Step 1: Understanding the Concept: The Ministry of Youth Affairs and Sports runs various schemes for the development of youth, categorized by the type of activities they fund.

Step 2: Detailed Explanation: The activities mentioned in the question (mountaineering, trekking, canoeing, coastal sailing) are strictly adventure sports.

The 'Promotion of Adventure' scheme provides financial assistance to institutions, youth clubs, and NGOs to organize such adventurous activities.

The goal is to instill traits like courage, teamwork, and risk-taking capacity in the youth.

Other schemes like NSS focus on social service, and National Integration focuses on cultural exchange.

Step 3: Final Answer: These activities fall under the Promotion of adventure programme.

 Quick Tip

Match the keywords in the question with the options. 'Mountaineering' and 'trekking' directly correlate with the word 'adventure'.

6. Which French term means 'the art of dress-making' ?

- (A) Prêt-à-porter
- (B) Couture
- (C) Couturière
- (D) Couturier

Correct Answer: (B) Couture

Solution:

Step 1: Understanding the Concept: Fashion terminology often relies heavily on French words to describe the creation and manufacturing of high-end fashion.

Step 2: Detailed Explanation: 'Couture' is the French word for sewing, dressmaking, or needlework.

It broadly refers to the art of dressmaking and the creation of exclusive custom-fitted clothing. 'Couturier' (male) and 'Couturière' (female) refer to the fashion designers who make these garments, not the art itself.

'Prêt-à-porter' translates to 'ready-to-wear', which is factory-made clothing sold in finished condition in standardized sizes.

Step 3: Final Answer: The specific term for the art of dress-making is Couture.

 Quick Tip

Remember the suffix difference: '-ier' and '-ière' denote the person (the professional), whereas the base word 'couture' denotes the art or practice itself.

7. Why are eggs and dairy products considered high-risk foods ?

- (A) They are animal-based foods
- (B) They are high in protein, which bacteria prefer.
- (C) They can be pasteurised.
- (D) They require very little cooking time.

Correct Answer: (B) They are high in protein, which bacteria prefer.

Solution:

Step 1: Understanding the Concept: High-risk foods are those that provide an ideal environment for the rapid growth of pathogenic microorganisms, leading to food poisoning if not handled correctly.

Step 2: Detailed Explanation: Bacteria require specific conditions to multiply, known by the acronym FAT TOM (Food, Acidity, Temperature, Time, Oxygen, Moisture).

High-risk foods are typically high in protein and moisture, and have a neutral or slightly acidic pH.

Eggs, dairy products, meat, and poultry fit these criteria perfectly.

The high protein content provides essential nutrients that bacteria prefer for rapid growth and reproduction.

Step 3: Final Answer: They are high-risk because they are high in protein, an ideal food source for bacteria.

 Quick Tip

When evaluating food spoilage risks, remember that moisture and high protein content are the primary factors that encourage bacterial proliferation.

8. According to the National Youth Policy 2014, which of the following age-groups is defined as 'Youth' in India ?

- (A) 18 - 38 years
- (B) 18 - 25 years
- (C) 16 - 30 years
- (D) 15 - 29 years

Correct Answer: (D) 15 - 29 years

Solution:

Step 1: Understanding the Concept: Demographic definitions for 'youth' vary by country and organization depending on socio-economic objectives.

Step 2: Detailed Explanation: The Government of India introduced the National Youth Policy (NYP) in 2014.

To target youth development effectively, the policy formally defined 'youth' as individuals in the age group of 15 to 29 years.

This broad bracket covers the transition from secondary education into the workforce and adulthood.

Step 3: Final Answer: The defined age group is 15-29 years.

 Quick Tip

Different organizations have different age brackets (e.g., UN defines youth as 15-24). For Indian government schemes, always rely on the NYP 2014 definition of 15-29 years.

9. Where is the consumer organisation CERC located ?

- (A) China
- (B) Ahmedabad
- (C) Delhi
- (D) Australia

Correct Answer: (B) Ahmedabad

Solution:

Step 1: Understanding the Concept: Consumer protection organizations play a vital role in educating and defending consumer rights in India.

Step 2: Detailed Explanation: CERC stands for the Consumer Education and Research Centre.

It is a leading non-profit, non-government body dedicated to the protection and promotion of consumer interests.

The headquarters of CERC is located in Ahmedabad, Gujarat, India.

Step 3: Final Answer: CERC is located in Ahmedabad.

 Quick Tip

CERC Ahmedabad is one of the most prominent consumer advocacy groups in India; associating the acronym with its well-known geographical base helps in quick recall.

10. Which is the best method of water extraction from clothes in a washing machine ?

- (A) Spinning
- (B) Bottom drain
- (C) Combination of bottom drain and spin
- (D) Tumbling

Correct Answer: (C) Combination of bottom drain and spin

Solution:

Step 1: Understanding the Concept: The efficiency of a washing machine's water extraction cycle determines how much moisture remains in the clothing before drying.

Step 2: Detailed Explanation: 'Spinning' utilizes centrifugal force to push water out of the fabric, but without proper drainage, the water can re-soak the clothes.

'Bottom drain' simply lets water flow out via gravity, which leaves clothes heavily saturated. A combination of both methods simultaneously spins the clothes to forcefully eject the water and uses the bottom drain to immediately remove that expelled water from the drum.

This synergy ensures maximum water removal without re-contamination.

Step 3: Final Answer: The most effective method is the combination of bottom drain and spin.

 Quick Tip

In technical processes, a combination of mechanical force (spin) and gravitational clearing (drain) almost always yields the highest efficiency.

11. 'Human Factors Engineering' is also known as _____.

- (A) Anthropometry
- (B) Biomechanics
- (C) Ergonomics
- (D) Entrepreneurship

Correct Answer: (C) Ergonomics

Solution:

Step 1: Understanding the Concept: The study of how humans interact with their tools, environments, and tasks aims to improve efficiency and safety.

Step 2: Detailed Explanation: 'Human Factors Engineering' focuses on designing equipment, devices, and processes that fit the human body and its cognitive abilities.

This field is universally synonymous with 'Ergonomics', derived from the Greek words 'ergon' (work) and 'nomos' (natural laws).

Anthropometry (study of body measurements) and Biomechanics (study of mechanical laws relating to movement) are sub-disciplines that feed data into Ergonomics, but are not the complete term.

Step 3: Final Answer: The equivalent term is Ergonomics.

 Quick Tip

Whenever you see 'Human Factors', think of making the workplace 'fit' the worker, which is the exact definition of Ergonomics.

12. Match List-I with List-II :

List-I (Guest Cycle Stage)

- i. Arrival
- ii. Pre-arrival
- iii. Departure
- iv. Occupancy

List-II (Activity)

- 1. Check-out
- 2. Coordination of guest services
- 3. Check-in
- 4. Quoting rates for the guests

Choose the correct option from the following :

- (A) i - 3, ii - 4, iii - 1, iv - 2
- (B) i - 4, ii - 3, iii - 2, iv - 1
- (C) i - 2, ii - 4, iii - 1, iv - 3
- (D) i - 2, ii - 1, iii - 4, iv - 3

Correct Answer: (A) i - 3, ii - 4, iii - 1, iv - 2

Solution:

Step 1: Understanding the Concept: The guest cycle in hospitality management maps the standard journey of a hotel guest from inquiry to departure.

Step 2: Detailed Explanation: Let us match each stage to its primary activity:

- Pre-arrival (ii) involves tasks before the guest reaches the hotel, such as inquiry, reservations, and 'Quoting rates for the guests' (4). So, ii - 4.
- Arrival (i) is when the guest physically reaches the hotel, characterized by the 'Check-in' process (3). So, i - 3.
- Occupancy (iv) is the duration of the stay, where the hotel focuses on the 'Coordination of guest services' (2) to ensure a comfortable visit. So, iv - 2.
- Departure (iii) is the end of the stay, marked by settlement of accounts and 'Check-out' (1). So, iii - 1.

Combining these gives: i - 3, ii - 4, iii - 1, iv - 2.

Step 3: Final Answer: This exact match corresponds to Option (A).

 Quick Tip

To solve matching questions quickly, find one or two obvious pairs first. 'Arrival' is universally linked to 'Check-in', which immediately narrows down the options.

13. Given below are two statements, labelled as Assertion (A) and Reason (R).

Assertion (A) : One of the chief objectives of Early Childhood Care and Education (ECCE) is to ensure the holistic development of children to enable them to realise their full potential.

Reason (R) : ECCE educators must realise the importance of each child's individual strengths and cultural context to design appropriate and inclusive activities.

Select the most appropriate answer from the options given below :

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- (C) (A) is true, but (R) is false.
- (D) (A) is false, but (R) is true.

Correct Answer: (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)

Solution:

Step 1: Understanding the Concept: Assertion-Reasoning questions require verifying the truth of both statements individually, and then determining if the Reason directly explains *why* the Assertion is true.

Step 2: Detailed Explanation: The Assertion states that ECCE aims for holistic development so children realize their full potential. This statement is factually true according to educational frameworks.

The Reason states that educators must recognize individual strengths and cultural context to design inclusive activities. This statement is also factually true, as it represents a best practice in pedagogy.

However, the Reason does not explain *why* the objective is holistic development. Instead, the Reason describes the *method* or *approach* educators should take to achieve that objective. Because it provides the 'how' rather than the 'why', it is not the definitive explanation of the Assertion's objective.

Step 3: Final Answer: Both statements are true independently, but R is not the correct explanation of A.

 Quick Tip

Use the 'Because' test. Read the Assertion, say 'because', and read the Reason. If it doesn't form a logical cause-and-effect sentence, then R is usually not the correct explanation.

14. Given below are two statements, labelled as Assertion (A) and Reason (R).
Assertion (A) : Standardisation marks ensure quality and purity of a product.
Reason (R) : The fineness and purity of only gold jewellery is indicated by Hallmark.

Select the most appropriate answer from the options given below :

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- (C) (A) is true, but (R) is false.
- (D) (A) is false, but (R) is true.

Correct Answer: (C) (A) is true, but (R) is false.

Solution:

Step 1: Understanding the Concept: Standardization marks are certifications issued by recognized bodies to assure consumers that a product conforms to specific quality and safety standards.

Step 2: Detailed Explanation: Assertion (A) is true; marks like ISI, Agmark, and FSSAI are implemented specifically to guarantee a baseline of quality and purity to the consumer.

Reason (R) states that Hallmark indicates the purity of 'only gold jewellery'.

This statement is false because the BIS Hallmark in India is used to certify the purity of both Gold and Silver jewellery.

The inclusion of the word 'only' makes the reasoning statement factually incorrect.

Step 3: Final Answer: Therefore, Assertion (A) is correct, but Reason (R) is entirely false.

 Quick Tip

Watch out for absolute words like 'only', 'always', or 'never' in Reason statements. They often make the statement factually incorrect.

15(a). A child of which age is called a toddler and how was this term derived ?

Correct Answer: 1 to 3 years; derived from the unsteady, wobbly walk known as 'toddling'.

Solution:

Step 1: Understanding the Concept: Developmental psychology divides childhood into specific age brackets based on physical and cognitive milestones.

Step 2: Detailed Explanation: In human development, a child between the ages of 1 to 3 years is classified as a toddler.

During this stage, a major physical milestone is learning to walk independently.

The term 'toddler' is derived from the verb 'to toddle', which describes the unsteady, wobbly, and wide-based gait that young children exhibit when they first begin walking.

Step 3: Final Answer: A toddler is aged 1 to 3 years, named after their characteristic 'toddling' walking style.

 Quick Tip

For subjective definitions, always provide both parts asked: the exact numerical age bracket and the etymological origin of the term.

15(b). Which institutional setting provides substitute care for young children ? Mention any one facility provided by it.

Correct Answer: Crèche / Daycare centre; provides facilities like supervised play and safe nutrition.

Solution:

Step 1: Understanding the Concept: Substitute care settings are organized institutions designed to care for infants and young children during the day when their parents are at work.

Step 2: Detailed Explanation: Institutional settings that offer such substitute care are commonly known as Crèches, Daycare centres, or Balwadis.

These centres are designed to be safe, child-friendly environments equipped with trained care-givers.

Facilities provided by these institutions generally include supervised play and learning activities, safe sleeping areas for naps, and provision of nutritious meals or snacks.

Mentioning any one of these facilities (e.g., supervised play) satisfies the requirement of the question.

Step 3: Final Answer: A crèche or daycare centre provides substitute care, offering facilities like supervised play or nutritious meals.

 Quick Tip

Always name the most common institutional setting recognized by the curriculum (like 'Crèche') and provide a tangible, distinct facility it offers.

16(a). Parineeta has completed her internship for her Postgraduate Diploma in Dietetics and is now searching for jobs in hospitals as a dietitian. Suggest two other career options she may consider.

Correct Answer: Sports Dietitian / Fitness centre nutritionist and Public Health Nutritionist.

Solution:

Step 1: Understanding the Concept: A qualification in dietetics opens up diverse career avenues beyond traditional clinical hospital settings.

Step 2: Detailed Explanation: While clinical dietetics in a hospital is the most recognized path, Parineeta possesses knowledge applicable to various sectors.

One alternative option is working as a Sports Dietitian or Nutritionist in a fitness centre, helping athletes and clients optimize performance through diet.

Another excellent option is becoming a Public Health Nutritionist, working with government NGOs or international agencies (like WHO or UNICEF) to design and implement community health and nutrition programs.

She could also consider roles as a consultant for food industries or in food product development.

Step 3: Final Answer: Two viable career options are Sports Nutritionist and Public Health Nutritionist.

 Quick Tip

When asked for alternative career options in Home Science fields, think of the broader applications: sports/fitness, community health, corporate consultancy, and academia/research.

16(b). Sonali is an integral part of the medical team in a district hospital. She assesses the nutritional status of patients admitted there and keeps records. Which two methods would she be using to assess the patients' nutritional status ?

Correct Answer: Anthropometric measurements and Biochemical assessment.

Solution:

Step 1: Understanding the Concept: Nutritional assessment is a comprehensive evaluation performed by a dietitian to define a patient's nutritional status using various standardized methods.

Step 2: Detailed Explanation: The universally recognized methods for assessing nutritional status are often remembered by the ABCD acronym (Anthropometric, Biochemical, Clinical, Dietary).

Sonali would likely use Anthropometric measurements, which involve measuring physical dimensions like height, weight, Body Mass Index (BMI), and mid-upper arm circumference.

She would also utilize Biochemical assessments, which rely on laboratory tests of bodily fluids (such as blood or urine) to check for nutrient levels, protein status, and organ function.

Additionally, Clinical assessment (looking for physical signs of malnutrition) and Dietary assessment (24-hour food recall) are valid methods she could use.

Step 3: Final Answer: Two primary methods she would use are Anthropometric measurements and Biochemical assessments.

 Quick Tip

Remember the 'ABCD' of nutritional assessment: Anthropometric, Biochemical, Clinical, and Dietary methods. Listing any two of these will secure full marks.

17(a). What is Public Health Nutrition ? How is this field different from Clinical Nutrition and Dietetics ?

Correct Answer: Public Health Nutrition focuses on promoting health in populations. It differs from Clinical Nutrition, which treats individual patients in healthcare settings.

Solution:

Step 1: Understanding the Concept: Nutrition science can be applied either to entire communities to prevent diseases or to specific individuals to manage existing illnesses.

Step 2: Detailed Explanation:

Public Health Nutrition is a field of study and practice that focuses on the promotion of good health and the prevention of diet-related illnesses in populations or communities. It involves assessing nutritional needs of groups and designing large-scale programs or policies.

Difference: The primary difference lies in the target audience and setting. Clinical Nutrition and Dietetics deals with the nutritional management and diet therapy of individual patients, usually within a healthcare or hospital setting, focusing on treating specific diseases. In contrast, Public Health Nutrition targets groups, communities, or nations with a focus on disease prevention and overall health promotion.

Step 3: Final Answer: Public Health Nutrition targets community health promotion, whereas Clinical Nutrition focuses on individual patient treatment.

 Quick Tip

Keywords to remember: 'Public Health' = Populations & Prevention. 'Clinical' = Individuals & Treatment.

17(b). Which term is used to refer to micronutrient deficiency ? Name any two important micronutrients whose deficiency is a public health concern.

Correct Answer: Hidden Hunger; Iron and Vitamin A (or Iodine).

Solution:

Step 1: Understanding the Concept: Micronutrient deficiencies often do not show immediate, visible physical signs like severe weight loss, hence they are termed differently.

Step 2: Detailed Explanation: The term used to refer to micronutrient deficiency is '**Hidden Hunger**'. It occurs when the quality of food people eat does not meet their nutrient requirements, even if they consume enough calories.

Two important micronutrients whose deficiency is a major public health concern globally and in India are:

1. **Iron:** Its deficiency leads to anemia, affecting cognitive development and work capacity.
2. **Vitamin A:** Its deficiency can cause night blindness, severe eye damage, and increases susceptibility to infections.

(Note: Iodine is also a correct alternative).

Step 3: Final Answer: The term is Hidden Hunger, involving nutrients like Iron and Vitamin A.

 Quick Tip

'Hidden hunger' emphasizes that a person might look well-fed (getting enough energy) but is secretly starving for essential vitamins and minerals.

18. Sarabjot is concerned about the elderly people living in his colony. In the annual meeting with the residents of the colony, what two reasons would he give to convince them that the elderly are a vulnerable group ?

Correct Answer: Physical decline (health issues) and socio-economic dependency (isolation/financial loss).

Solution:

Step 1: Understanding the Concept: Vulnerable groups in society are those who face a higher risk of poverty, social exclusion, or health issues. The elderly (senior citizens) fit into this category due to age-related changes.

Step 2: Detailed Explanation: Sarabjot can provide the following two primary reasons:

1. **Physical and Health Vulnerability:** As people age, they experience a natural decline in physical strength, sensory abilities (vision, hearing), and a weaker immune system. This makes them highly susceptible to chronic diseases, falls, and makes independent daily living challenging.

2. **Socio-Economic Vulnerability:** After retirement, the elderly often face financial insecurity due to a lack of regular income. Furthermore, they are prone to social isolation and psychological distress, especially if living alone or after the loss of a spouse, making them emotionally vulnerable.

Step 3: Final Answer: They are vulnerable due to declining physical health and increased socio-economic dependency.

 Quick Tip

When discussing vulnerability of any demographic, always try to cover two main aspects: biological/physical challenges and social/economic challenges.

19. Daniel, an ECCE-trained teacher, is teaching counting to Grade 1 students using creative techniques such as rhyme, singing and dancing. Identify two other skills that he could use in his classroom.

Correct Answer: Storytelling and organising Art/Craft activities.

Solution:

Step 1: Understanding the Concept: Early Childhood Care and Education (ECCE) relies heavily on interactive, play-way methods to keep young children engaged and facilitate learning.

Step 2: Detailed Explanation: Apart from musical and kinetic skills (rhyme, singing, dancing), an effective ECCE teacher should possess various other pedagogical skills. Two such skills Daniel could use are:

1. **Storytelling:** Using engaging narratives, props, or puppets to introduce numbers. For example, telling a story about three little pigs to teach the concept of 'three'.
2. **Art and Craft Skills:** Guiding students to use hands-on materials. For instance, making them mould numbers out of clay or stringing a specific number of beads, which helps with counting and fine motor skills.

Step 3: Final Answer: Daniel can utilize storytelling and art/craft activities.

 Quick Tip

Think of the 'Play-Way' method. Any skill that involves imagination, sensory experience, or active physical participation is a valid ECCE teaching skill.

20. Mention two aspects that affect the care and maintenance of fabrics.

Correct Answer: Fibre content and Fabric construction.

Solution:

Step 1: Understanding the Concept: The way a fabric must be washed, dried, and ironed depends entirely on its physical and chemical properties.

Step 2: Detailed Explanation: Two major aspects that dictate fabric care are:

1. **Fibre Content:** The fundamental material of the fabric (e.g., natural fibres like cotton and silk vs. synthetic fibres like polyester). Cotton can generally withstand hot water and vigorous washing, while delicate silk requires mild detergent and gentle handling.
2. **Fabric Construction:** How the yarn is put together (e.g., woven, knitted, or blended). Knitted fabrics are prone to stretching and losing shape, so they often need to be dried flat, whereas tightly woven fabrics are more stable during standard washing and hanging.

Step 3: Final Answer: Care is primarily affected by the fibre content and the construction of the fabric.

 Quick Tip

Always read the care label! The instructions on it are derived specifically from these two aspects: what the thread is made of, and how it was woven together.

21. Present one similarity and one difference between Print media and Information and Communication Technologies as methods of Development Communication.

Correct Answer: Similarity: Both disseminate information to masses. Difference: Print is static and one-way, ICT is interactive and dynamic.

Solution:

Step 1: Understanding the Concept: Development Communication uses various media platforms to share information intended to bring about positive social change.

Step 2: Detailed Explanation:

Similarity: Both Print media (like newspapers, posters, leaflets) and Information and Communication Technologies (ICTs like the internet, mobile phones, social media) serve as powerful channels for mass communication. They are both utilized to raise awareness, educate the public, and disseminate critical information regarding health, agriculture, and government schemes to large populations.

Difference: The key difference lies in interactivity. Print media is essentially a **one-way**, static mode of communication; the audience consumes the information but cannot instantly respond or interact with it. In contrast, ICTs are **two-way** and highly interactive. They allow for instant feedback, dynamic content updates, user participation, and have a much faster, global reach.

Step 3: Final Answer: Both reach masses, but ICT offers interactivity which print lacks.

 Quick Tip

When comparing traditional media with new media, 'interactivity' and 'speed/reach' are always the primary differentiating factors.

22. Yasmeen wants to get zari polishing on her old lehenga from a laundry. From which suitable laundry should she get it done ? How is this laundry different from a household laundry ?

Correct Answer: Commercial laundry (Dry Cleaners); they use specialized chemical solvents instead of water and have specialized equipment.

Solution:

Step 1: Understanding the Concept: Different fabrics and embellishments require different levels of care. Zari (metallic thread) is delicate and easily tarnished by regular washing methods.

Step 2: Detailed Explanation: Yasmeen should take her lehenga to a **Commercial Laundry**, specifically one that offers **Dry Cleaning** services, to get the zari polishing done safely. This commercial setup is different from household laundry in several ways:

1. **Cleaning Medium:** Household laundry primarily uses water and standard detergents, which can oxidize and blacken zari. Commercial dry cleaners use specialized non-water based chemical solvents that clean without damaging delicate metallic threads.

2. **Specialized Equipment:** Commercial laundries have specialized industrial machines for pressing, polishing, and handling heavily embellished or delicate garments that cannot be processed in standard home washing machines.

Step 3: Final Answer: She should use a commercial dry cleaner, which utilizes chemical solvents rather than water used in household washing.

 Quick Tip

Heavy, embellished, or metallic ethnic wear almost always requires 'Dry Cleaning'. Mentioning the use of chemical solvents vs. water is the key distinction.

23(a). Briefly describe any three consumer rights as laid down under the Consumer Protection Act.

Correct Answer: Right to Safety, Right to Information, Right to Choose.

Solution:

Step 1: Understanding the Concept: The Consumer Protection Act empowers citizens with specific legal rights to protect them from unfair trade practices and substandard goods.

Step 2: Detailed Explanation: Three key consumer rights are:

1. **Right to Safety:** This right protects consumers against the marketing of goods and services that are hazardous to life and property. For example, electrical appliances must have standard safety marks (like ISI) to prevent accidents.

2. **Right to Information:** Consumers have the right to be informed about the quality, quantity, potency, purity, standard, and price of goods. This ensures they are protected against deceptive advertising or misleading labels.

3. **Right to Choose:** This is the right to be assured, wherever possible, access to a variety of goods and services at competitive prices. It prevents monopolies and allows the consumer to select what best fits their needs and budget.

Step 3: Final Answer: The rights described are Safety, Information, and Choice.

 Quick Tip

Memorize the acronym SICE: Safety, Information, Choose, Educated. These are the four most commonly tested consumer rights.

23(b). After being trained in the area of consumer education and protection, in which three areas can an individual develop a career ?

Correct Answer: Consumer advocacy (NGOs), Product testing laboratories, and Consumer redressal forums/government departments.

Solution:

Step 1: Understanding the Concept: Specialized knowledge in consumer protection opens diverse career paths focused on advocating for and enforcing consumer rights.

Step 2: Detailed Explanation: An individual trained in this field can explore careers in:

1. **Consumer Advocacy and NGOs:** Working as a consumer activist or counsellor in non-governmental organizations to educate the public, run awareness campaigns, and assist consumers in filing complaints against malpractices.
2. **Product Testing and Quality Control:** Working in government or private consumer testing laboratories. Their role involves scientifically evaluating products to ensure they meet safety and quality standards before reaching the market.
3. **Government Departments and Redressal Forums:** Developing a career in the Department of Consumer Affairs or working within the legal framework of Consumer Dispute Redressal Commissions (consumer courts) to help resolve disputes.

Step 3: Final Answer: Careers can be built in NGOs, testing labs, and government consumer affairs departments.

 Quick Tip

Think of the three pillars of consumer protection: educating the public (NGOs), ensuring safe products (labs), and providing justice (forums).

24(a). On the completion of 11 years of the Beti Bachao, Beti Padhao (BBBP) scheme, local leaders in the community are organising a public meeting to raise awareness about its best practices and objectives. Highlight any three key objectives of this scheme that may have contributed to changing mindsets of people.

Correct Answer: Prevent female feticide, ensure survival of the girl child, and promote girls' education.

Solution:

Step 1: Understanding the Concept: The 'Beti Bachao, Beti Padhao' (Save the Girl Child, Educate the Girl Child) scheme is a flagship government campaign aimed at addressing the declining Child Sex Ratio (CSR) and empowering women.

Step 2: Detailed Explanation: The three primary objectives of the BBBP scheme that actively work towards changing societal mindsets are:

1. **Prevention of gender-biased sex selective elimination:** This objective aims to change the mindset that favors sons over daughters by strictly enforcing laws against illegal prenatal diagnostic techniques and female foeticide.
2. **Ensuring survival and protection of the girl child:** This focuses on providing equal

care, nutrition, and health facilities to female infants, changing the societal practice of neglecting girls' health compared to boys.

3. Ensuring education and participation of the girl child: By promoting girls' enrollment and retention in schools, the scheme fights the mindset that investing in a girl's education is a waste, instead highlighting her potential as a contributing member of society.

Step 3: Final Answer: The objectives focus on preventing foeticide, ensuring survival, and prioritizing education for girls.

 Quick Tip

The name of the scheme gives the answer away: 'Beti Bachao' relates to survival and preventing foeticide, while 'Beti Padhao' relates directly to ensuring education.

24(b). Traditional handloom weaver, Champa Devi is in distress due to low source of income as their weaving craft is vanishing slowly. Encourage her by informing any three efforts/initiatives by the Government of India to revive their occupation.

Correct Answer: National Handloom Development Programme, Mudra Scheme for weavers, and E-Dhaga App.

Solution:

Step 1: Understanding the Concept: Traditional crafts face stiff competition from power looms. The government implements various schemes to provide financial, technological, and marketing support to artisans to preserve heritage crafts.

Step 2: Detailed Explanation: Champa Devi can be encouraged by informing her about these three government initiatives:

1. **National Handloom Development Programme (NHDP) / Cluster Approach:** The government identifies clusters of weavers and provides them with upgraded looms, training for new designs, and infrastructure support like common facility centres to improve productivity.

2. **Financial Assistance (Mudra Scheme):** Under schemes like the Weaver Mudra Scheme, traditional weavers are provided with concessional credit and low-interest loans. This helps them purchase high-quality raw materials without falling into debt traps.

3. **Digital and Marketing Initiatives (e.g., E-Dhaga App and Handloom Mark):** The government has launched apps like 'e-Dhaga' to help weavers easily access subsidized yarn. Furthermore, the 'Handloom Mark' guarantees the authenticity of handwoven products, helping weavers fetch better prices in domestic and international markets.

Step 3: Final Answer: Inform her about cluster development, financial loans (Mudra), and digital supply chain apps.

 Quick Tip

To support an artisan, they need three things: better skills/tools (Cluster programs), money (Mudra scheme), and raw materials/markets (E-Dhaga/Handloom Mark).

25. The media club of your school is preparing a Public Service Announcement on 'Swachh Bharat Abhiyan'. As a team member, which three key features of Public Service Announcement will you follow while creating this message ?

Correct Answer: Concise and clear message, emotional appeal to the target audience, and a clear call to action.

Solution:

Step 1: Understanding the Concept: A Public Service Announcement (PSA) is a brief message disseminated by the media without charge, aimed at raising awareness and changing public attitudes or behaviors towards a social issue.

Step 2: Detailed Explanation: To create an effective PSA for 'Swachh Bharat Abhiyan', the following three key features must be included:

1. **Clear, Focused, and Concise Message:** The core message must be singular and easily understandable. In this case, it should highlight the importance of cleanliness and sanitation without confusing the audience with too much data or multiple themes.
2. **Strong Emotional Appeal:** The message should resonate emotionally with the target audience (students and local community). Using humor, a sense of civic pride, or highlighting the health dangers of a dirty environment helps make the message memorable and impactful.
3. **Specific Call to Action (CTA):** A good PSA doesn't just present a problem; it tells the audience exactly what they can do to fix it. The video should end with actionable steps like "Use dustbins," "Segregate wet and dry waste," or "Join the weekend cleanliness drive."

Step 3: Final Answer: The PSA must be concise, emotionally engaging, and provide a clear call to action.

 Quick Tip

A successful PSA formula: State the problem simply → Make them care (emotion) → Tell them what to do (action).

26(a). Which two personnel are responsible for cleaning various surfaces and materials in the hotel ?

Correct Answer: Room Attendant and Houseperson (Public Area Attendant).

Solution:

Step 1: Understanding the Concept: The housekeeping department employs specific staff

members designated for cleaning different areas within a hospitality establishment.

Step 2: Detailed Explanation: Two key personnel responsible for direct cleaning duties are:

1. **Room Attendant (or Chambermaid):** Primarily responsible for the daily cleaning, tidying, and restocking of guest bedrooms and attached bathrooms.
2. **Houseperson / Public Area Attendant:** Responsible for cleaning and maintaining hygiene in common, high-traffic areas such as the hotel lobby, corridors, elevators, public restrooms, and banquet halls.

Step 3: Final Answer: Room attendants clean guest rooms, while housepersons clean public areas.

 Quick Tip

Distinguish between the private spaces (Room Attendant) and the shared spaces (Houseperson/Public Area Attendant) in a hotel.

26(b). Name any two cleansing agents used by them.

Correct Answer: Detergents and Disinfectants.

Solution:

Step 1: Understanding the Concept: Cleansing agents are chemical compounds formulated specifically to remove dirt, stains, and microbes from various surfaces.

Step 2: Detailed Explanation: Housekeeping staff utilize a variety of agents depending on the surface. Two common ones are:

1. **Detergents:** Used for general cleaning to break up and remove grease, grime, and dirt from floors, walls, and fabrics.
2. **Disinfectants (or Sanitizers):** Strong chemical agents used specifically in bathrooms and high-touch areas to kill harmful bacteria, viruses, and prevent the spread of infections.

Step 3: Final Answer: Common agents include general detergents and targeted disinfectants.

 Quick Tip

Remember that 'cleaning' removes visible dirt (needs detergent), while 'sanitizing' removes invisible germs (needs disinfectant).

26(c). Which two eco-friendly practices would be adopted by the Housekeeping staff for environmental conservation ?

Correct Answer: Using biodegradable cleaning chemicals and implementing linen reuse programs.

Solution:

Step 1: Understanding the Concept: Green housekeeping involves operational strategies that minimize the environmental impact of maintaining a hotel's cleanliness.

Step 2: Detailed Explanation: To promote environmental conservation, the staff can adopt:

1. **Use of Biodegradable/Green Cleaning Products:** Replacing harsh, toxic chemical cleaners with eco-friendly, non-toxic alternatives that naturally break down in the environment without polluting water systems.

2. **Linen and Towel Reuse Programs:** Implementing a system where guests are encouraged to reuse their towels and bedsheets for more than one day. This significantly reduces the massive amounts of water, electricity, and detergent consumed by daily laundry operations.

Step 3: Final Answer: Green chemical usage and water conservation through linen reuse are key practices.

 Quick Tip

Whenever asked about 'eco-friendly' practices in institutions, the best answers involve reducing water/energy usage or swapping toxic chemicals for natural ones.

27(a)(i). Anticipate which strategy will it use to meet the nutritional needs of these children.

Correct Answer: Supplementary Feeding Strategy.

Solution:

Step 1: Understanding the Concept: Public nutrition interventions use specific strategies based on the immediacy of the problem and the resources available.

Step 2: Detailed Explanation: The scenario states the NGO is "providing a healthy snack" directly to the children. This indicates an immediate, direct intervention to fill the gap between what the children normally eat and what they actually need.

This specific approach of providing extra food to targeted vulnerable groups is known as the **Supplementary Feeding Strategy**. It is designed to rapidly improve nutritional status by supplementing their regular diet.

Step 3: Final Answer: The strategy being used is Supplementary Feeding.

 Quick Tip

If an intervention involves directly handing out prepared food or snacks, it is 'Supplementary Feeding'. If it involves adding nutrients during manufacturing (like iodized salt), it is 'Fortification'.

27(a)(ii). Provide any two advantages and any one disadvantage of using this strategy.

Correct Answer: Advantages: Provides immediate relief, targets specific groups. Disadvantage: Costly and logistically difficult to sustain.

Solution:

Step 1: Understanding the Concept: Every nutritional intervention has pros and cons regarding its effectiveness, cost, and sustainability.

Step 2: Detailed Explanation:

Advantages of Supplementary Feeding:

1. **Immediate Nutritional Relief:** It yields fast results. Malnourished children receive immediate calories and nutrients, preventing acute health deterioration.
2. **Highly Targeted:** The intervention can be strictly focused on the most vulnerable demographics (e.g., young children in a specific resettlement area), ensuring resources are utilized exactly where needed most.

Disadvantage:

1. **Lack of Long-term Sustainability:** It is a very expensive strategy that requires continuous funding, complex logistics for daily distribution, and manpower. Once the NGO leaves or funding stops, the nutritional problem will likely return if the root causes (poverty, lack of dietary diversity) aren't addressed.

Step 3: Final Answer: It offers fast, targeted relief but is financially and logistically difficult to maintain long-term.

 Quick Tip

Supplementary feeding is like a band-aid; it stops the immediate bleeding (malnutrition) quickly and effectively, but doesn't cure the underlying disease (poverty/food insecurity).

27(b)(i). Recognise the hormone whose secretion decreases due to iodine deficiency.

Correct Answer: Thyroxine (Thyroid hormones).

Solution:

Step 1: Understanding the Concept: Trace minerals play critical roles in the endocrine system. Iodine is the essential building block for a specific gland in the human body.

Step 2: Detailed Explanation: The thyroid gland, located in the neck, requires dietary iodine to synthesize its hormones. When there is inadequate dietary intake of iodine, the gland cannot produce sufficient amounts of its primary hormone.

This hormone is **Thyroxine** (also known as T4, along with Triiodothyronine or T3). These

thyroid hormones are crucial for regulating the body's metabolism, growth, and development.

Step 3: Final Answer: The hormone is Thyroxine.

 Quick Tip

Always link 'Iodine' with the 'Thyroid' gland. The primary product of this gland is Thyroxine.

27(b)(ii). Mention any three symptoms seen in individuals suffering from IDD.

Correct Answer: Goitre (enlarged neck), extreme fatigue, and impaired cognitive development (cretinism in severe cases).

Solution:

Step 1: Understanding the Concept: Iodine Deficiency Disorders (IDD) represent a spectrum of health issues caused by a lack of thyroid hormones.

Step 2: Detailed Explanation: When thyroxine levels drop, the body exhibits several symptoms. Three prominent symptoms of IDD include:

1. **Goitre:** The most visible symptom. The thyroid gland hypertrophies (enlarges) in a desperate attempt to capture any available iodine from the blood, resulting in a pronounced swelling in the front of the neck.
2. **Fatigue and Weight Gain (Hypothyroidism):** Because thyroid hormones regulate metabolism, their deficiency causes the body's metabolic rate to slow down drastically, leading to chronic tiredness, lethargy, and unexplained weight gain.
3. **Mental Retardation / Cretinism:** This is the most severe consequence. If a pregnant woman is severely iodine deficient, her infant may be born with cretinism, characterized by irreversible, severe mental retardation, and stunted physical growth.

Step 3: Final Answer: Key symptoms are goitre, lethargy/weight gain, and severe cognitive impairment in infants.

 Quick Tip

Goitre is the most obvious physical sign, but don't forget the metabolic impacts (tiredness) and the severe developmental impacts (cretinism) when listing symptoms.

28(a). Discuss any two roles of a fashion merchandiser.

Correct Answer: Trend forecasting and sourcing/buying materials.

Solution:

Step 1: Understanding the Concept: A fashion merchandiser acts as the vital bridge

between fashion design and the retail consumer market. They ensure the right products are available at the right time.

Step 2: Detailed Explanation: Two critical roles of a fashion merchandiser are:

1. **Trend Forecasting and Analysis:** Merchandisers must analyze past sales data, current market conditions, and upcoming fashion trends. They predict what styles, colors, and fabrics consumers will want in the next season to guide the design team's conceptualization.
2. **Sourcing and Buying:** Once designs are finalized, the merchandiser is responsible for sourcing the necessary raw materials (fabrics, trims) at cost-effective prices. In retail settings, they act as buyers, selecting which finished garments from manufacturers to purchase and stock in their stores based on consumer demand and budget constraints.

Step 3: Final Answer: They forecast upcoming consumer trends and manage the sourcing/buying of products.

 Quick Tip

Think of the merchandiser as the 'business brain' of fashion. They don't sketch the clothes; they figure out what will sell (forecasting) and how to get it made/bought profitably (sourcing).

28(b). Outline any two ways of market segmentation.

Correct Answer: Demographic segmentation and Geographic segmentation.

Solution:

Step 1: Understanding the Concept: Market segmentation is the process of dividing a broad target market into smaller, more defined sub-groups of consumers who share similar needs or characteristics.

Step 2: Detailed Explanation: Two common ways to segment a market are:

1. **Demographic Segmentation:** This is the most common method. It involves dividing the market based on quantifiable statistical characteristics of populations. Examples include segmenting by age (e.g., clothing for teenagers vs. senior citizens), gender, income level, or education.
2. **Geographic Segmentation:** This divides the market based on physical locations and environments. A fashion brand will market different clothing depending on whether the target audience lives in a cold, mountainous region (selling heavy winter wear) or a hot, coastal area (selling light cottons and swimwear).

Step 3: Final Answer: Markets are commonly segmented demographically (by age/income) and geographically (by location).

 Quick Tip

To remember market segmentation types, ask: WHO are they? (Demographic), WHERE are they? (Geographic), HOW do they act? (Behavioural), and WHY do they buy? (Psychographic).

29(a). Define phytochemicals.

Correct Answer: Non-nutritive plant chemicals that have protective or disease-preventive properties.

Solution:

Step 1: Understanding the Concept: Beyond essential nutrients (carbohydrates, proteins, vitamins), plants contain complex chemicals that offer significant health benefits.

Step 2: Detailed Explanation:

Phytochemicals (derived from the Greek word 'phyto' meaning plant) are naturally occurring, biologically active chemical compounds found in plants.

Unlike vitamins and minerals, they are considered non-essential nutrients, meaning a deficiency will not cause a specific disease. However, they play a crucial role in maintaining optimal health. They often act as antioxidants, protect against cellular damage, and have been shown to help prevent chronic diseases such as cancer and cardiovascular disorders. Examples include flavonoids in berries and lycopene in tomatoes.

Step 3: Final Answer: They are biologically active, health-promoting plant compounds.

 Quick Tip

When defining phytochemicals, emphasize that they are 'plant-derived', 'non-nutritive' (not essential for survival), but 'disease-preventing'.

29(b). List any three skills that a professional clinical nutritionist/dietitian must possess.

Correct Answer: Scientific knowledge base, counselling/communication skills, and analytical/assessment skills.

Solution:

Step 1: Understanding the Concept: A clinical dietitian is a healthcare professional who translates nutritional science into practical dietary advice for patients managing specific diseases.

Step 2: Detailed Explanation: To be effective, a clinical nutritionist must possess the following three skills:

1. **Strong Scientific Knowledge:** Deep understanding of human physiology, biochemistry, and how different nutrients interact with specific disease states (like diabetes, renal failure, or heart disease) to formulate appropriate therapeutic diets.
2. **Excellent Communication and Counselling Skills:** The ability to explain complex nutritional concepts in simple terms, empathize with patients, and motivate them to make difficult, long-term lifestyle and dietary changes.
3. **Analytical and Clinical Assessment Skills:** The capability to accurately interpret patient data, including analyzing biochemical lab reports (blood tests) and performing anthropometric measurements, to assess nutritional status and monitor progress.

Step 3: Final Answer: Essential skills include scientific expertise, patient counselling abilities, and clinical data analysis.

 Quick Tip

A good dietitian needs the brain of a scientist (knowledge), the eye of an investigator (assessment), and the heart of a teacher (counselling).

30(a). Frozen peas and canned fruits are preserved foods. Elaborate any other three ways by which processed foods can be classified on the basis of extent and type of processing.

Correct Answer: Minimally processed foods, Manufactured foods, and Formulated foods.

Solution:

Step 1: Understanding the Concept: Food processing ranges from simple cleaning to complex chemical alterations. Foods are classified based on how extensively their original state is changed.

Step 2: Detailed Explanation: Apart from preserved foods, three other classifications based on the extent of processing are:

1. **Minimally Processed Foods:** These are foods that have undergone very slight alterations, mainly for convenience or basic safety, without significantly changing their inherent nutritional content. Examples include pre-washed and bagged spinach, shelled nuts, or roasted coffee beans.
2. **Manufactured Foods:** In this category, the original characteristics of raw products are lost to create new, distinct products with longer shelf lives. Basic ingredients are combined and processed (e.g., baked, fermented). Examples include bread (from wheat), cheese (from milk), or pickles.
3. **Formulated Foods:** These are highly processed products created by mixing various ingredients, often including additives, preservatives, and flavorings, to achieve a specific taste, texture, and long shelf life. They generally do not resemble raw ingredients. Examples include instant soup mixes, soft drinks, or ready-to-eat extruded snacks.

Step 3: Final Answer: The classifications are minimally processed, manufactured, and formulated foods.

 Quick Tip

Think of the spectrum of processing: Minimum (just washed/cut) → Preserved (canned/frozen to last longer) → Manufactured (changed form, like milk to cheese) → Formulated (highly mixed, like soft drinks).

30(b). Give any two examples of non-perishable foods.

Correct Answer: Whole wheat grains and dried lentils (pulses).

Solution:

Step 1: Understanding the Concept: Foods are classified by their shelf life. Non-perishable foods contain very little moisture, making them resistant to rapid microbial spoilage.

Step 2: Detailed Explanation: Non-perishable foods can be stored safely at room temperature for extended periods (months or years) without spoiling, provided they are kept dry and protected from pests.

Two common examples are:

1. **Whole Grains:** Such as raw rice, wheat, or dry oats.
2. **Dried Legumes/Pulses:** Such as dried beans, lentils, or chickpeas.

(Other correct examples include sugar, salt, and heavily preserved canned goods).

Step 3: Final Answer: Grains and dried pulses are classic examples of non-perishable foods.

 Quick Tip

'Perish' means to die or decay. Foods that lack moisture (the key ingredient for bacterial growth) are 'non-perishable' and have very long shelf lives in the pantry.

31(a). HACCP ensures food safety by identifying hazards. Give its full form.

Correct Answer: Hazard Analysis Critical Control Point.

Solution:

Step 1: Understanding the Concept: HACCP is an internationally recognized, systematic preventive approach to food safety.

Step 2: Detailed Explanation: The full form of the acronym is:

Hazard

Analysis

Critical

Control

Point

It functions by identifying potential biological, chemical, or physical hazards in the production

process and establishing control mechanisms at critical points to prevent these hazards from making the food unsafe.

Step 3: Final Answer: The full form is Hazard Analysis Critical Control Point.

 Quick Tip

Memorize the exact phrasing; it is a standard international term. It focuses on 'Analysis' of the problem and setting up 'Control Points' to fix it.

31(b). Describe four levels of food standards.

Correct Answer: Company, National, Regional, and International standards.

Solution:

Step 1: Understanding the Concept: Food standards are established rules and guidelines ensuring the safety, quality, and uniformity of food products. They operate hierarchically from local to global levels.

Step 2: Detailed Explanation: The four levels of food standards are:

1. **Company Standards:** These are internal rules set by an individual food manufacturing company for its own operations. They are designed to ensure product consistency, brand quality, and often exceed legal baseline requirements.
2. **National Standards:** These are established by the government bodies of a specific country to protect its citizens. They are legally enforceable within that nation. In India, the Food Safety and Standards Authority of India (FSSAI) sets these national standards.
3. **Regional Standards:** These are agreements made between a group of geographically proximate nations to facilitate smooth trade within their region by harmonizing food laws (e.g., standards set by the European Union).
4. **International Standards:** These are universally recognized guidelines developed by global bodies, primarily the *Codex Alimentarius Commission* (jointly run by FAO and WHO). They aim to protect global consumer health and ensure fair practices in international food trade.

Step 3: Final Answer: Standards exist at internal company, national legal, regional trade, and international global levels.

 Quick Tip

Think of the levels as expanding circles of authority: from a single factory (Company) → to a country (National) → to a continent/bloc (Regional) → to the whole world (International).

32(a). A textile designer uses Munsell colour system while designing fabrics. Predict any two aspects of colour which she/he might use in designing and also elab-

orate the classification of colours.

Correct Answer: Aspects: Hue, Value, or Chroma. Classification: Primary, Secondary, and Tertiary colours.

Solution:

Step 1: Understanding the Concept: The Munsell colour system is a standardized way to specify colours based on three distinct dimensions. Furthermore, general colour theory classifies colours by how they are mixed.

Step 2: Detailed Explanation:

Two aspects of colour in the Munsell system:

A designer would use any of these three dimensions (mentioning any two is sufficient):

1. **Hue:** This is the actual name of the colour family (e.g., Red, Blue, Green). It is the basic identity of the colour.
2. **Value:** This describes the lightness or darkness of a hue. A designer adjusts value by adding white to create a 'tint' (lighter) or adding black to create a 'shade' (darker).
3. **Chroma (Intensity):** This refers to the purity, brightness, or dullness of a colour. A high chroma colour is vivid and pure, while a low chroma colour is muted or greyed out.

Elaboration on the Classification of Colours:

Colours are fundamentally classified into three categories based on mixing:

1. **Primary Colours:** These are the base colours that cannot be created by mixing any other colours together. In pigment theory, these are Red, Yellow, and Blue.
2. **Secondary Colours:** These are created by mixing equal amounts of two primary colours. For example, Red + Yellow = Orange; Blue + Yellow = Green; Red + Blue = Violet/Purple.
3. **Tertiary Colours:** These are formed by mixing a primary colour with an adjacent secondary colour on the colour wheel (e.g., mixing primary Yellow with secondary Green creates Yellow-Green).

Step 3: Final Answer: The designer uses Hue and Value (or Chroma), and colours are classified as Primary, Secondary, and Tertiary.

 Quick Tip

To remember the Munsell dimensions: Hue is the 'Name', Value is the 'Lightness/Darkness', and Chroma is the 'Brightness/Dullness'.

32(b). Principles of design are the rules that govern how design elements are combined in the most appropriate way. Name any four principles of design used to produce an appealing dress and briefly describe any three of them.

Correct Answer: Principles: Proportion, Balance, Emphasis, Rhythm, Harmony.

Solution:

Step 1: Understanding the Concept: While design elements (line, color, texture) are the

tools, the principles of design are the rules or guidelines on how to use those tools to create an aesthetically pleasing garment.

Step 2: Detailed Explanation:

Four principles of design:

1. Proportion
2. Balance
3. Emphasis
4. Rhythm (or Harmony)

Description of three principles:

1. **Proportion (or Scale):** This is the relationship of the sizes of different parts of a design to each other and to the whole garment. For a dress to look appealing, the size of details like collars, pockets, or patterns must be proportionate to the size of the wearer and the overall silhouette of the dress.
2. **Balance:** This principle deals with the visual weight distribution in a garment to create a sense of stability. It can be **Symmetrical** (formal balance), where the left and right halves of the dress are identical mirror images, or **Asymmetrical** (informal balance), where the design is different on each side but the visual weight is still balanced (e.g., a heavy ruffle on one shoulder balanced by a draped skirt on the opposite side).
3. **Emphasis:** This is the focal point or the center of interest in a design. It is the part of the dress that draws the eye first. Designers create emphasis using contrasting colors, unusual textures, striking lines, or embellishments (like a heavily embroidered neckline on an otherwise plain dress) to highlight the wearer's best features.

Step 3: Final Answer: Key principles include Proportion (size relations), Balance (weight distribution), and Emphasis (focal point).

 Quick Tip

Think of building a house: Elements (bricks, wood) are the materials, but Principles (balance, proportion) are the architectural blueprints that make the house look good.