THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

752 **HOME ECONOMICS**

Time: 3 Hours. **ANSWER** **Year: 2003**

Instructions

1. This paper has Section A, B and C with a total of **Sixteen (16)** questions.

2. Answer **all** questions from Section A and **two (2)** questions from Section B and C each.

3. Section A carries **forty (40)** marks and Section B and C carries **thirty (30)** marks each.

4. Mobile phones are **not** allowed inside the examination room.

5. Write your **Examination Number** on every page of your answer booklet

SECTION A (40 Marks)

Answer all questions in this section.

1. Define the term “emulsification” in food preparation and give one example of an emulsion.

   Emulsification is the process of mixing two immiscible liquids, typically oil and water, into a stable, uniform dispersion where tiny droplets of one liquid are suspended throughout the other.

   An example of a common emulsion in food preparation is mayonnaise, where oil droplets are stabilized within an aqueous phase (vinegar/lemon juice) using egg yolk lecithin as the emulsifying agent.

2. List four factors that determine the selling price of a finished handmade garment.

   One factor that determines the selling price is the cost of raw materials, including the fabric, thread, fasteners, and any embellishments used.

   Another factor is the time taken and complexity of the garment, which dictates the labor cost per hour for the skilled work involved in construction.

   The overhead costs, such as electricity, rent for the workspace, maintenance of the sewing machine, and marketing expenses, are also factored into the final price.

   Finally, the target market and brand positioning influence the price; garments positioned as high-end or couture command a higher profit margin and price than mass-market items.

3. Mention four symptoms a learner might exhibit that indicate a learning difficulty in the practical aspect of Home Economics.

   One symptom is persistent and unusual clumsiness or poor coordination when handling tools like knives, needles, or small appliances.

   A learner might exhibit difficulty in following multi-step, sequential instructions without constant prompts or becoming easily overwhelmed by a complex recipe or pattern.

Another symptom is poor spatial reasoning, such as struggling to measure ingredients accurately, correctly lay out a pattern on fabric, or visualize how garment pieces fit together.

They may also show significant anxiety or withdrawal during practical sessions, consistently avoiding active participation or making excuses to observe rather than perform the task.

4. State four ways to safely thaw frozen meat or poultry at home.

One safe method is to thaw the meat in the refrigerator, which is the slowest but safest way, as it keeps the temperature below 40∘F (4∘C) to inhibit bacterial growth.

Another safe method is to thaw the meat in a leak-proof plastic bag submerged in cold tap water, changing the water every 30 minutes to maintain a low temperature.

Meat can be safely thawed in the microwave oven on the defrost setting, but it must be cooked immediately after thawing because some parts may begin to warm up.

A final safe method is to simply cook the meat without thawing, though the cooking time must be adjusted to be about 50% longer than for thawed meat.

5. Give four reasons for choosing to mend a garment instead of discarding it.

Mending a garment extends its lifespan, contributing to sustainability by reducing the amount of textile waste sent to landfills.

It is a cost-effective solution as buying a new replacement garment is usually more expensive than spending a small amount of time and thread on a mend.

Mending allows the garment to be retained for sentimental reasons if it holds special memories or is a favorite item.

The act of mending is a practical way to practice and improve sewing skills, fostering resourcefulness and appreciation for craftsmanship.

6. Identify four specific nutrient-related health risks associated with a high intake of processed foods.

One major risk is weight gain and obesity due to the high energy density, large portion sizes, and excess amounts of refined sugars and unhealthy fats found in many processed foods.

A high intake is linked to an increased risk of cardiovascular diseases, often due to the high levels of saturated fats, trans fats, and sodium which negatively impact blood pressure and cholesterol levels.

Consumption of processed foods can lead to a deficiency in essential micronutrients, fiber, and phytochemicals because these foods are often heavily refined, stripping away their natural nutritional content.

High sodium levels in processed foods significantly increase the risk of hypertension (high blood pressure), which is a leading risk factor for stroke and kidney disease.

7. List four essential details that must be included on a pattern envelope for a commercial sewing pattern.

The pattern envelope must clearly state the required yardage or meterage of fabric for each size and view of the garment.

It must include a list of necessary notions and supplies, such as zippers, buttons, interfacing, and seam binding, that are needed to complete the project.

The envelope provides the finished garment measurements and size chart, which allows the user to select the correct pattern size based on body measurements.

There must be a photograph or illustration of all the design variations (views) that can be made from the enclosed pattern pieces.

8. State four principles of good kitchen layout design.

One principle is the work triangle concept, which ensures an efficient flow between the three main work areas: the sink, the refrigerator, and the cooktop.

Another principle is adequate landing space; there should be counter space next to the refrigerator, oven, and sink for placing hot items, transferring food, or setting down groceries.

Good design emphasizes safety and accessibility, ensuring pathways are clear, corners are minimized, and storage is reachable for all users to prevent accidents.

The principle of sufficient storage must be followed, providing ample and well-organized cabinets and drawers that are strategically located near their point of use.

9. Mention four steps a teacher should take immediately after an accidental minor burn in the Home Economics laboratory.

The first step is to immediately remove the heat source from the student or move the student away from the source of the burn.

The teacher should then cool the burn immediately by running it under cool (not cold or icy) water for at least 10 to 20 minutes to reduce pain and prevent further tissue damage.

Gently remove any clothing or jewelry from the affected area *unless* it is stuck to the burn, as swelling may occur quickly.

Finally, the teacher must cover the burn loosely with a sterile, non-adhesive dressing or clean plastic wrap and seek further medical advice or assistance if necessary.

10. Give four advantages of using case studies as a teaching method in a Home Economics Family Studies lesson.

Case studies promote deep critical thinking by requiring learners to analyze a complex, real-world scenario from multiple perspectives.

They bridge the gap between theory and practice by demonstrating how abstract concepts like budgeting or conflict resolution are applied in a family's life.

This method encourages empathy and perspective-taking, as students must understand and discuss the motivations and challenges of the individuals within the case.

Case studies naturally foster collaborative learning and discussion among students as they work together to debate possible solutions or outcomes for the scenario presented.

SECTION B (30 Marks)

Answer any two questions from this section.

11. Describe six factors that influence a consumer's decision-making process when purchasing textile items.

One major factor is the cost and perceived value of the textile item, as consumers often balance the price tag against the expected quality, durability, and brand prestige.

The fiber content and care requirements significantly influence the decision; a consumer may prefer natural fibers for comfort but avoid them if they require high maintenance, such as dry cleaning.

Fashion trends and social influence play a substantial role, as consumers are often motivated to purchase textiles that align with current styles, peer approval, or a specific social image they wish to project.

The intended end use of the item is crucial; a consumer purchasing a textile for upholstery will prioritize durability and stain resistance, while one buying a garment will prioritize drape and feel.

Brand reputation and ethical considerations are increasingly important; many consumers choose brands known for sustainable practices, fair labor, or high quality, reflecting personal values and trust.

Finally, the aesthetic qualities of the textile, including its color, texture, print, and feel (hand), are immediate sensory factors that appeal to the consumer's personal taste and design preferences.

12. Explain six reasons why the daily allowance of water is a critical component of a healthy diet, beyond just quenching thirst.

Water is a critical component because it acts as the primary solvent for nutrients, allowing vitamins, minerals, and glucose to be dissolved, transported, and absorbed into the body's cells.

It is essential for regulating body temperature through sweating; as water evaporates from the skin, it dissipates heat, preventing potentially dangerous overheating.

Water plays a vital role in maintaining blood volume and proper circulation, ensuring that oxygen and essential substances are efficiently delivered to all organs and tissues.

It is necessary for flushing out metabolic waste products and toxins from the body, primarily through the kidneys in the form of urine, preventing their accumulation.

Sufficient water intake is required to lubricate joints and protect sensitive tissues, such as the spinal cord and the brain, acting as a shock absorber.

Furthermore, water is crucial for the proper functioning of the digestive system, aiding in the formation of stools and preventing constipation by keeping food moving smoothly through the intestines.

13. Discuss six ways a Home Economics teacher can foster creativity and innovation among learners in a practical cooking session.

One way is to introduce "mystery basket" or "challenge" tasks where learners are given a limited set of ingredients and a specific culinary goal, forcing them to devise innovative recipes and techniques under pressure.

Teachers can encourage the modification of standard recipes by allowing learners to substitute key ingredients or alter flavor profiles, promoting experimentation and a deeper understanding of ingredient function.

Providing open-ended practical assessments where the final product is not rigidly defined, such as "create a healthy dish using seasonal vegetables," allows learners freedom to design and innovate their own solutions.

Setting aside time for "innovation sharing" sessions where learners present and discuss their unique ideas, successes, and even failures, fosters a culture of experimentation and peer inspiration.

The teacher should provide a diverse range of unusual or ethnic ingredients and tools, exposing learners to new culinary traditions and prompting them to incorporate these novel elements into their cooking.

Finally, stressing the importance of plating and presentation as an art form encourages creative thought in arranging and garnishing food, moving the focus beyond mere technical competence to aesthetic innovation.

SECTION C (30 Marks)

Answer any two questions from this section.

14. Explain in detail six safety guidelines that must be strictly followed when using a blender or food processor in the kitchen.

The first safety guideline is to ensure the lid or cover is securely locked in place before starting the machine. Starting a blender or food processor with a loose lid can result in the contents splattering dangerously, causing burns or creating a slipping hazard.

Always add liquids first when using a blender, followed by solids, to ensure the blades can move freely and effectively process the ingredients without putting undue strain on the motor.

Never use the machine to process extremely hot liquids without first allowing them to cool slightly and removing the center cap of the lid. The steam buildup from hot liquids can cause the lid to blow off, leading to severe burns.

It is strictly necessary to turn off and unplug the appliance before attempting to scrape the sides of the container, remove the blade assembly, or dislodge food. The blades are extremely sharp, and accidental activation can cause serious lacerations.

Learners must be instructed to use the tamper or pusher tool provided only when the machine is running, and never use their fingers or other utensils near the moving blades. The tamper is specifically designed not to reach the blades when the lid is in place.

Finally, the safety instruction is to never overload the container past the maximum fill line indicated on the appliance. Overloading can cause the motor to overheat, the lid to pop off, or the contents to spill forcefully, compromising both the machine and safety.

15. Describe six steps involved in preparing a powerpoint presentation as a teaching aid for a nutrition lesson, ensuring maximum impact.

The first step is to define the specific learning objectives for the lesson, ensuring that every slide and piece of content directly contributes to learners achieving the intended nutritional knowledge or skill.

Next, outline the content logically, structuring the presentation with clear headings, subheadings, and a progression that moves from familiar concepts to new or complex nutritional information.

The third step is to design visually appealing slides by using a clean, consistent template, a high-contrast color scheme, and clear, large fonts. Avoid excessive text; instead, use the "6x6 rule" (maximum six lines per slide, maximum six words per line) to keep slides concise.

Crucially, incorporate high-quality, relevant visual aids, such as engaging photographs of food, clear diagrams of the food pyramid/plate, or simple charts of nutrient data, to reinforce key nutritional concepts visually.

The presentation should include interactive elements or discussion prompts, such as a short video clip, a question slide, or a brief activity suggestion, to break up the lecture and keep learners actively engaged with the nutritional material.

The final step is to rehearse the presentation timing and create comprehensive speaker notes, ensuring the teacher's verbal delivery adds detail and context to the minimal text on the screen, thereby maximizing the overall impact and clarity of the lesson.

16. Explain six essential elements that must be included in a comprehensive Home Economics laboratory maintenance schedule.

One essential element is the daily cleanup and sanitation protocol, which specifies tasks like washing and sterilizing all surfaces, sinks, and equipment immediately after each practical session to ensure hygiene and safety.

The schedule must include a weekly deep-cleaning routine, detailing tasks such as cleaning ovens, degreasing stove hoods, defrosting refrigerators, and scrubbing floors, which prevents the buildup of grime and grease.

It requires a monthly inventory and resupply check for consumables, including non-perishable ingredients, cleaning agents, first-aid supplies, and teaching materials, ensuring the lab is always stocked and ready for use.

An element dedicated to the regular inspection and servicing of major equipment must be included, specifying checks on the functionality of stoves, ovens, sewing machines, and ventilation systems, often requiring professional technicians.

The schedule must detail the inspection and sharpening of small equipment and tools, such as knives, scissors, and hand mixers, to ensure they are in good working order and do not pose a hazard due to dullness or damage.

Finally, the maintenance plan should feature a quarterly or semester safety audit of the fire extinguishers, first aid kit, emergency shut-off switches, and chemical storage areas, ensuring compliance with all institutional safety regulations.