

Candidate's Examination Number.....

**THE UNITED REPUBLIC OF TANZANIA**  
**NATIONAL EXAMINATIONS COUNCIL**  
**FORM TWO SECONDARY EDUCATION EXAMINATION**

**051**

**FOOD AND NUTRITION**

**Time: 2:30 Hours**

**ANSWERS**

**Tuesday, 24 November 2015 a.m**

**Instructions**

1. This paper consists of Section **A**, **B** and **C**.
2. Answer **all** questions in section **A** and **B**, and choose only **ONE** question from section **C**.
3. **All** answers should be written in spaces provided.
4. Cellular phones and unauthorized materials are not allowed in the assessment room
5. Write your **Examination Number** at the top right-hand corner of every page.

FOR ASSESSOR'S USE ONLY		
QUESTION NUMBER	SCORE	ASSESSOR'S INITIALS
1		
2		
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TOTAL		
CHECKER'S INITIALS		

**SECTION A (20 Marks)**

1. For each of the following items (i) - (x), choose the correct answer and write its letter in the box provided.

(i) The diseases that can be prevented through immunization are

- A. Malaria, measles and asthma
- B. Measles, poliomyelitis and diphtheria
- C. Kwashiorkor, measles and poliomyelitis
- D. Anaemia, malaria and measles

**Correct Answer: B**

**Reason:** Immunization prevents infectious diseases caused by specific pathogens (viruses or bacteria) through vaccines. Measles, poliomyelitis (polio), and diphtheria are vaccine-preventable diseases with well-established vaccines. Malaria is caused by a parasite and has no widely available vaccine for universal immunization. Asthma is a non-infectious condition, and kwashiorkor and anaemia are nutritional deficiencies, not preventable by immunization.

(ii) The developmental stage range which adolescence fits is

- A. Childhood and adulthood
- B. Infantile and childhood
- C. Toddler and adulthood
- D. Foetal and childhood

**Correct Answer: A**

**Reason:** Adolescence is the transitional developmental stage between childhood and adulthood, typically occurring during the teenage years (roughly ages 10–19). It bridges the physical, emotional, and social changes from childhood to adulthood. The other options (infantile, toddler, foetal) refer to earlier stages that do not align with adolescence.

(iii) The part of meat suitable for grilling is

- A. Boneless cuts
- B. Fatty cuts
- C. Tender cuts
- D. Tough cuts

**Correct Answer: C**

**Reason:** Grilling requires meat that cooks quickly and remains juicy and flavorful under high, direct heat. Tender cuts, such as steaks or chops, are ideal because they are naturally soft and require minimal cooking time. Tough cuts need slower cooking methods (e.g., braising) to break down connective tissue. While boneless or fatty cuts may be grilled, tenderness is the key factor.

(iv) The name given to refuse from water closets, laundry and baths is

- A. Mixed refuse
- B. Liquid refuse
- C. House liquid
- D. Unused liquid

**Correct Answer: B**

**Reason:** Refuse from water closets (toilets), laundry, and baths is wastewater, commonly referred to as liquid refuse in sanitation contexts. It consists of used water and dissolved or suspended waste. The other terms (mixed refuse, house liquid, unused liquid) are either too vague or incorrect for this specific type of waste.

(v) The following are the nutrition mainly found in fruits and vegetables

- A. Water and protein
- B. Roughage and minerals
- C. Minerals and vitamins
- D. Vitamins and proteins

**Correct Answer: C**

**Reason:** Fruits and vegetables are primarily rich in minerals (e.g., potassium, magnesium) and vitamins (e.g., vitamin C, vitamin A). While they contain some water and roughage (fiber), and trace amounts of protein in certain cases, their most significant nutritional contributions are minerals and vitamins. Protein is more abundant in other food groups like legumes or meat.

(vi) The proper way of taking care of the teeth is

- A. Brush by using modern tooth paste
- B. Encourage chewing solid foods
- C. Have regular dental check-up
- D. Avoiding drinking mineral water

**Correct Answer: C**

**Reason:** Proper dental care involves a combination of practices, but regular dental check-ups are the most comprehensive way to maintain oral health. Check-ups allow professionals to detect and treat issues like cavities or gum disease early, ensuring long-term tooth health. Brushing with toothpaste is important but insufficient alone, chewing solid foods is not a primary care method, and avoiding mineral water is irrelevant to dental care.

(vii) Identify a laundry stage which aims to improve colour on white articles

- A. Blueing
- B. Bleaching
- C. Stiffening
- D. Re-colouring

**Correct Answer: B**

**Reason:** Bleaching is the laundry process used to whiten white fabrics and remove stains, thereby improving the color and brightness of white articles.

(viii) The following are the statements aiming on First Aid, except

- A. Finding the course of accident
- B. Prevent further damage
- C. Save life of the victim
- D. Relief pains

**Correct Answer: A**

**Reason:** First Aid focuses on immediate actions to save lives, prevent further damage, and relieve pain or discomfort in an emergency. Finding the cause of an accident is part of investigation or prevention, not a direct First Aid objective, which prioritizes urgent care for the victim.

(ix) The effect using soda in Aluminium is

- A. It scratch and chip the metal
- B. It soften the metal and make it light
- C. It discolour the metal and make it rusty
- D. It dissolves the metal and turns it black

**Correct Answer: D**

**Reason:** Soda (sodium hydroxide or similar alkaline substances) is highly corrosive to aluminium. It reacts chemically, causing the metal to dissolve and often forms a black oxide layer or discoloration. Scratching or chipping is mechanical damage, softening is inaccurate, and aluminium does not rust (it corrodes differently).

(x) The following is the disease caused by lack of thiamine

- A. Rickets
- B. Pellagra
- C. Beriberi
- D. Scurvy

**Correct Answer: C**

**Reason:** Thiamine (vitamin B1) deficiency causes beriberi, a disease affecting the nervous and cardiovascular systems, with symptoms like weakness and heart issues. Rickets is caused by vitamin D deficiency, pellagra by niacin (vitamin B3) deficiency, and scurvy by vitamin C deficiency.

2. Write **TRUE** if the statement is **correct** and **FALSE** if the statement is **not correct** in the space provided.

- (i) Breast-feeding should be stopped during weaning period. ....**FALSE**.....
- (ii) Breathing in poisonous gas may cause suffocation. ....**TRUE**.....
- (iii) Immunization is one of the basic requirements for child health. ....**TRUE**.....
- (iv) Pressure cooker is suitable for dry cooking method. ....**FALSE**.....

- (v) Sexual abuse, hooliganism and alcoholism are examples of bad manner. ...**TRUE**.....
- (vi) Low intake of dietary fibre may cause obesity. ....**FALSE**.....
- (vii) Soft water leaves white marks on the skin after bathing. ....**FALSE**.....
- (viii) Wet mops are used for wiping after scrubbing. ....**TRUE**.....
- (ix) A tenant is a person who pays rent to a land lord. ....**TRUE**.....
- (x) Fever is one of the symptoms of pregnancy. ....**FALSE**.....

### **SECTION B (60 Marks)**

3. (a) Give the meaning of:

**(i) Preventive Health Services**

Services aimed at preventing diseases and promoting health through measures like immunization, health education, and environmental sanitation before illness occurs.

**(ii) Curative Health Service**

Services focused on treating and curing diseases or health conditions through medical interventions, such as medication, surgery, or therapy, after illness has occurred.

**(b) Identify four Preventive Health Services necessary in the community.**

- (i) Immunization programs (e.g., vaccines for measles, polio)
- (ii) Health education and awareness campaigns
- (iii) Provision of clean water and sanitation facilities
- (iv) Regular health screenings (e.g., for blood pressure, cancer)

**(c) State three ways in which a family can prevent diseases.**

- (i) Maintaining proper hygiene (e.g., handwashing, clean living spaces)
- (ii) Ensuring a balanced diet to boost immunity
- (iii) Vaccinating family members against preventable diseases

**4. (a) Give three causes of nutritional anaemia.**

- (i) Deficiency of iron in the diet
- (ii) Inadequate intake of vitamin B12 or folate
- (iii) Poor absorption of nutrients due to digestive disorders

**(b) Give three symptoms of anaemia.**

- (i) Fatigue and weakness
- (ii) Pale skin or mucous membranes
- (iii) Shortness of breath or dizziness

**(c) (i) Mention three ways of preventing nutritional anaemia.**

- Consuming iron-rich foods (e.g., spinach, red meat, lentils)
- Including vitamin C-rich foods to enhance iron absorption
- Taking supplements as prescribed for deficiencies

**(ii) Write three ways of treating nutritional anaemia.**

- Administering iron or vitamin B12/folate supplements
- Eating a nutrient-rich diet with iron, folate, and vitamin B12
- Treating underlying causes (e.g., parasitic infections, malabsorption)

**5. (a) Describe six steps of laundry work.**

- (i) **Sorting:** Separate clothes by color, fabric type, and level of soiling.
- (ii) **Pre-treating:** Treat stains with appropriate stain removers.
- (iii) **Washing:** Clean clothes using water, detergent, and suitable methods (hand or machine).
- (iv) **Rinsing:** Remove detergent and dirt by rinsing with clean water.
- (v) **Drying:** Dry clothes by air-drying or using a dryer, based on fabric needs.
- (vi) **Ironing/Folding:** Press clothes to remove wrinkles or fold them for storage.

**(b) Write the importance of the following treatments in laundry work for white cottons.**

**(i) Boiling:**

- Kills germs and bacteria, ensuring hygiene.
- Removes tough stains and brightens white cotton fabrics.

**(ii) Starching:**

- Adds stiffness to cotton fabrics, improving appearance and shape.
- Protects fabric surface, making it resistant to dirt and wear.

**(c) State two factors to consider in the treatment of stains.**

- (i) Type of stain (e.g., grease, blood, ink) to choose the correct removal method.
- (ii) Fabric type to avoid damaging material during stain treatment.

**6. (a) Give four reasons for cooking food.**

- (i) Enhances digestibility by breaking down complex nutrients.
- (ii) Kills harmful pathogens, making food safe to eat.
- (iii) Improves flavor, aroma, and texture of food.
- (iv) Preserves food by reducing spoilage through heat.

**(b) Outline five points to consider when choosing a method of cooking food.**

- (i) Type of food (e.g., meat, vegetables) and its texture or composition.
- (ii) Nutritional retention to minimize loss of vitamins and minerals.
- (iii) Available equipment (e.g., stove, oven, grill).
- (iv) Time available for cooking (quick vs. slow methods).
- (v) Desired flavor or presentation (e.g., crispy, tender, moist).

**(c) State four suitable methods for cooking fish.**

- (i) Grilling
- (ii) Steaming
- (iii) Baking
- (iv) Poaching

**SECTION C (20 Marks)**

Answer only **one** question from this section.

**7. Describe socio-cultural factors that encourage early marriage and aspects of early marriage for girls that hinder their empowerment.**

**Traditional Gender Roles and Expectations:** In many societies, cultural norms dictate that girls should marry early to fulfill roles as wives and mothers. These traditions view marriage as a girl's primary purpose, often prioritizing family honor over individual aspirations. For example, communities may believe early marriage ensures a girl's chastity or secures her future, pressuring families to arrange marriages before girls reach adulthood. This limits girls' opportunities to pursue education or personal growth, reinforcing gender inequality.

**Economic Pressures and Poverty:** Socio-economic challenges drive early marriage in resource-constrained communities. Families in poverty may marry off daughters to reduce financial burdens or secure dowries, viewing marriage as an economic transaction. This practice is common in regions where girls are seen as economic liabilities. Early marriage due to poverty curtails girls' empowerment by denying them access to education or skills development, trapping them in cycles of dependency.

**Cultural Practices and Community Norms:** Certain cultural practices, such as bride price or arranged marriages, encourage early marriage. Communities may enforce norms that tie family status to marrying daughters at a young age, with social stigma for those who delay. These norms restrict girls' autonomy, as they are often excluded from marriage decisions. This hinders empowerment by limiting their ability to make life choices or develop independent identities.

**Lack of Education and Awareness:** Limited access to education reinforces early marriage, as uneducated girls are less likely to challenge cultural norms or understand their rights. Families may prioritize marriage over schooling, believing it offers security. For girls, early marriage disrupts education, a key empowerment tool, reducing their ability to gain skills, employment, or financial independence, and perpetuating gender disparities.



**Health and Reproductive Consequences:** Early marriage often leads to early pregnancies, posing health risks for young girls whose bodies are not fully developed. These health challenges, including complications during childbirth, hinder physical well-being, a critical aspect of empowerment. Additionally, early motherhood shifts focus to domestic responsibilities, limiting time for personal development, education, or career pursuits, further disempowering girls.

**8. Explain seven causes of accidents in the home.**

**Slippery or Cluttered Surfaces:** Wet floors, spilled liquids, or cluttered spaces like toys and cables increase the risk of slips, trips, and falls. For instance, a kitchen floor wet from washing can cause someone to lose balance, leading to injuries. Poor housekeeping, such as leaving items on stairs, exacerbates this risk. These accidents are common in homes with young children or elderly members who may struggle with mobility.

**Improper Use of Electrical Appliances:** Faulty wiring, overloaded sockets, or mishandling appliances like irons or heaters can cause electrical shocks or fires. For example, using damaged cords or leaving appliances unattended may spark accidents. Lack of awareness about electrical safety, especially in homes with outdated systems, heightens this danger, posing risks to all household members.

**Unsafe Storage of Hazardous Substances:** Chemicals like cleaning agents, pesticides, or medicines, if not stored securely, can lead to poisoning or burns, particularly for children who may ingest or touch them. Improper labeling or storing these items within reach increases accident risks. This is a significant issue in homes lacking childproof storage or awareness of chemical dangers.

**Poor Lighting and Ventilation:** Inadequate lighting in areas like staircases or hallways can cause trips or collisions, especially at night. Poor ventilation may lead to suffocation or carbon monoxide poisoning from gas heaters or stoves. Homes with dim lighting or blocked air vents create hazardous conditions, increasing the likelihood of accidents for residents.

**Neglect of Safety Equipment:** Failure to install or maintain safety devices, such as smoke detectors, fire extinguishers, or handrails, heightens accident risks. For example, missing handrails on stairs

can lead to falls, particularly for the elderly. Homes without regular safety checks or emergency preparedness are more prone to preventable injuries or fatalities.

**9. Explain six advantages of breast milk and four reasons for giving young babies other types of milk rather than breast milk.**

**Advantages of Breast Milk:**

**Optimal Nutritional Composition:** Breast milk is uniquely tailored to meet an infant's nutritional needs, containing the perfect balance of proteins, fats, carbohydrates, vitamins, and minerals. It adjusts to the baby's growth stages, providing easily digestible nutrients that support brain development and overall growth. For example, colostrum, the first milk, is rich in antibodies, boosting newborn immunity. This comprehensive nutrition promotes healthy development in early life.

**Immune System Support:** Breast milk is packed with antibodies, enzymes, and white blood cells that protect infants from infections like respiratory illnesses and diarrhea. It strengthens the baby's immune system, reducing the risk of allergies and chronic conditions later in life. For instance, breastfeeding lowers the incidence of ear infections, benefiting babies in environments with high disease exposure.

**Promotes Bonding and Emotional Health:** Breastfeeding fosters a strong emotional bond between mother and baby through skin-to-skin contact and nurturing. This physical closeness supports the infant's emotional security and reduces stress, contributing to psychological well-being. The act of breastfeeding also releases oxytocin in mothers, enhancing maternal attachment and caregiving instincts.

**Cost-Effective and Convenient:** Breast milk is free, requiring no preparation, packaging, or storage costs, unlike formula milk. It is always available at the right temperature, making feeding convenient, especially during travel or emergencies. This accessibility benefits families in low-resource settings, ensuring consistent nutrition without financial strain.

**Long-Term Health Benefits:** Breastfeeding reduces the risk of chronic conditions for both baby and mother. For infants, it lowers the likelihood of obesity, diabetes, and cardiovascular diseases in adulthood. For mothers, it decreases the risk of breast and ovarian cancers. These long-term benefits contribute to healthier families and reduced healthcare costs over time.

**Reasons for Giving Young Babies Other Types of Milk:**

**Maternal Health Conditions:** Some mothers cannot breastfeed due to medical conditions like HIV, active tuberculosis, or severe malnutrition, which could harm the baby or mother. For example, HIV-positive mothers may risk transmitting the virus through breast milk, necessitating formula milk to ensure infant safety. In such cases, alternative milks are critical to meet the baby's nutritional needs.

**Insufficient Milk Supply:** Some mothers experience low milk production due to hormonal imbalances, stress, or anatomical issues like inverted nipples. Despite efforts to stimulate lactation, they may be unable to provide enough breast milk. Formula or donor milk becomes necessary to prevent infant malnutrition and support healthy growth.

**Maternal Medication Use:** Certain medications, such as chemotherapy drugs or specific psychiatric medications, can pass into breast milk and pose risks to the infant. Mothers taking these treatments may need to avoid breastfeeding to protect the baby's health. Alternative milks, like formula, provide a safe feeding option during such medical treatments.

**Socio-Economic or Lifestyle Factors:** Mothers who return to work or have demanding schedules may find breastfeeding challenging due to time constraints or lack of private spaces for pumping. In such cases, formula milk offers a practical alternative, allowing caregivers to feed the baby while the mother is unavailable, ensuring consistent nutrition.

**Adoption or Surrogacy:** In cases of adoption or surrogacy, biological breastfeeding is not possible, as the caregiver may not lactate. Formula milk or donor breast milk becomes essential to nourish the infant. These alternatives ensure that non-biological parents can provide adequate nutrition, supporting the baby's growth and development.