

**HOME SCIENCE GRADE 10
MIDTERM 2 EXAM 2026**

MARKING SCHEME

SECTION A (40 marks)

1. Functions of proteins in the human body

Any FOUR of the following: (4 marks - 1 mark each)

- Growth and repair of body tissues
- Formation of enzymes and hormones
- Providing energy (1g protein = 4 calories)
- Formation of antibodies for immunity
- Formation of haemoglobin in blood
- Maintenance of body pH (buffers)

2. Kitchen safety hazards

Any FIVE of the following: (5 marks - 1 mark each)

- Hot surfaces (cookers, pans, boiling water)
- Sharp objects (knives, broken glass)
- Slippery floors (wet surfaces)
- Electrical hazards (faulty appliances)
- Poor ventilation and smoke inhalation
- Fire hazards (unattended cooking)
- Poor hygiene and pest infestation

3. Define the following terms

(4 marks - 1 mark each)

Nutrition: The process of taking in and using food for energy, growth and repair.

Hygiene: Conditions and practices that promote health and prevent disease.

Adolescence: The period between childhood and adulthood, usually 12-19 years.

Fibre: Indigestible carbohydrates found in plants that aid digestion.

4. Ways of maintaining good personal hygiene

Any FOUR of the following: (4 marks - 1 mark each)

- Bathing/showering regularly with clean water and soap
- Washing hands before eating and after using the toilet
- Washing hair regularly with shampoo
- Cleaning nails and keeping them trimmed
- Brushing teeth twice daily
- Wearing clean clothes and changing undergarments daily
- Managing menstruation hygienically (for girls)

5. Causes of food spoilage

Any FIVE of the following: (5 marks - 1 mark each)

- Bacterial action/fermentation
- Fungal and mould growth
- Enzyme activity (oxidation)
- Moisture/humidity
- Pests and rodents (physical damage)
- Temperature changes (too high or fluctuating)

- Light exposure (especially for oils and fats)

1. Methods of food preservation

Explain TWO methods: (4 marks - 2 marks each)

Refrigeration: Storing food at low temperatures (below 5C) slows bacterial growth and extends shelf life.

Freezing: Storing food at very low temperatures (below -18C) stops microbial growth completely.

Drying: Removing moisture prevents microbial growth as microorganisms need water.

Canning: Heat treatment in sealed containers kills microorganisms and prevents new entry.

Salting: High salt concentration creates environment unfavourable for microbial growth.

Smoking: Smoke has antimicrobial properties and reduces moisture content.

SECTION B (60 marks)

2. Menu planning and nutrition (17 marks)

(a) Three-day menu plan (10 marks)

Award marks as follows:

- Day 1, 2, 3 clear headings (3 marks - 1 mark per day)
- Meals identified: Breakfast, Lunch, Dinner (3 marks)
- Food items listed for each meal (2 marks)
- Meals are balanced/nutritious (2 marks)

Sample Three-Day Menu:

DAY 1

- Breakfast: Porridge with milk, bread, butter, avocado
- Lunch: Rice and beans stew, steamed cabbage, tomato sauce
- Dinner: Ugali, fish/meat, sukuma wiki, fresh fruit

DAY 2

- Breakfast: Tea/milk, chapati, eggs, tomatoes
- Lunch: Ugali, beef/chicken, carrots and peas
- Dinner: Beans and maize, boiled potatoes, green salad

DAY 3

- Breakfast: Millet porridge, bread, peanut butter
- Lunch: Spaghetti, meat/beans sauce, beetroot salad
- Dinner: Githeri, milk, fruits

(b) Nutritional requirements for adolescents (3 marks)

Any THREE of the following: (1 mark each)

- High energy due to rapid growth and physical activity
- Adequate protein for tissue and muscle growth
- Calcium for bone and teeth development
- Iron for blood formation and to prevent anaemia
- Vitamins especially A, C, D and B-complex
- Minerals and dietary fibre for good digestion

(c) Dietary modifications for diarrhoea (4 marks)

Any FOUR modifications: (1 mark each)

- Increase fluid intake to prevent dehydration
- Avoid fatty/oily foods which irritate digestive system
- Avoid fibrous foods temporarily
- Give easily digestible foods like rice, porridge, bananas
- Avoid spicy and heavily seasoned foods
- Give small, frequent meals rather than large meals
- Use ORS containing salt and glucose

3. Food safety during meal preparation (10 marks)

Award marks for steps addressing three key areas:

PREPARATION (3 marks):

- Wash hands thoroughly before starting
- Clean and sanitize all work surfaces and utensils
- Use separate cutting boards for raw meat and vegetables

COOKING (4 marks):

- Check expiry dates of all ingredients
- Cook at appropriate temperatures
- Maintain good kitchen hygiene
- Avoid touching hair, face while cooking

STORAGE (3 marks):

- Cool cooked food before refrigerating
- Store cooked and raw food separately
- Use clean, covered containers

4. Factors in selecting clothing materials (15 marks)

(a) Five factors for different seasons (10 marks)

Any FIVE factors with explanation: (2 marks each)

1. **Absorbency:** Cotton and linen absorb sweat, suitable for hot seasons.
2. **Insulation:** Wool provides warmth for cold seasons.
3. **Breathability:** Natural fibres allow air circulation.
4. **Durability:** Consider resistance to wear and ease of maintenance.
5. **Weight:** Heavy fabrics for winter, lightweight for summer.

(b) Care of cotton clothes (5 marks)

Award marks for proper procedure: (1 mark per step)

- Sort clothes by colour to prevent colour bleeding
- Check pockets and brush off dirt
- Soak in lukewarm water with detergent
- Scrub stained areas and wash thoroughly
- Rinse several times in clean water
- Squeeze out excess water (do not wring)
- Hang in shade to dry
- Iron while slightly damp
- Fold and store in clean place

5. Home planning and bedroom features (14 marks)

(a) Functions of a well-planned home (8 marks)

Any FOUR functions: (2 marks each)

- Provides shelter and protection from harsh weather
- Promotes family bonding and relationships
- Provides privacy and personal space
- Facilitates efficient household management
- Promotes health and hygiene through proper design
- Reflects family values and culture

(b) Features of a teenage girl's bedroom (6 marks)

Any SIX features: (1 mark each)

- A comfortable bed with clean bedding
- A study desk and chair for schoolwork
- Good lighting for safety and reading
- Adequate ventilation for air circulation
- Wardrobe/storage space for clothes
- A shelf for books and school materials
- Pleasant colours matching personal preference
- Pictures and decorations for aesthetics
- Privacy (lock on door/window coverings)
- Cleanliness and organization

6. Health and sanitation practices (10 marks)

Discuss FIVE practices: (2 marks each)

- Proper waste disposal: Use dustbins, avoid littering, proper sewage disposal.
- Clean water supply: Use treated/boiled water for drinking and cooking.
- Personal hygiene: Hand washing, bathing daily, cleaning nails.
- Pest control: Keep homes clean, use mosquito nets to prevent malaria.
- Food hygiene: Cover food, keep utensils clean, store food properly.
- Isolation of sick members: Separate spaces, separate utensils, good ventilation.
- Immunization: Ensure all members are vaccinated according to schedule.