

P640/2
Foods and
Nutrition
(With science
in the home)
Paper 2
2 ½ hours



ACEITEKA JOINT MOCK EXAMINATIONS 2024

Uganda Advanced Certificate of Education

FOODS AND NUTRITION

(With Science in the Home)

Paper 2

Theory

Time: 2 Hours 30 Minutes

Instructions to Candidates

- *This paper consists of **one section** containing six numbers*
- *Answer only **four** question (s).*

1. (a) Describe how a vacuum flask works to maintain water cold? (6marks)
(b) Explain the cooling effect of sweat in the body? (4marks)
(c) Describe how lightening is caused during the rainy season? (6marks)
(d) How does a lightening conductor protect homes from lightening? (6marks)
2. (a) Give the challenges associated with the use of wooden articles in the kitchen? (5marks)
(b) Why would you recommend the use of formica to protect wood? (6marks)
(c) With aid of a diagram, explain how a deep fryer works? (7marks)
(d) Why is it important to follow manufacturer instructions when using electrical appliances? (7marks)
3. (a) How does a hair dryer generate heat that dries the hair? (5marks)
(b) Explain how the efficiency of an electric kettle can be improved? (7marks)
(ii) What first aid treatment would you give a person affected by electric shock? (5marks)
(c) An automatic 2 litre kettle is rated at 2400 watts and is used on a 240 volts main
(i) Calculate the resistance of the heating element? (2marks)
(ii) Calculate the time taken to heat up the filled kettle from 25⁰c to 100⁰c. (the thermal heat capacity of water is 4.2 kj)? (3marks)
(iii) What is the cost of heating up the water in the kettle to boiling point? (1 unit of electricity cost shs.700) (3marks)
4. (a) Describe five mechanical properties you would consider when selecting materials for a particular type of job? (5marks)
(ii) Give the difference between unit density and bulk density? (4marks)
(b) Describe the method you would use to determine the relative density of a powder? (8marks)
(c) With well-illustrated examples, discuss the working principles of hydrometers? (3marks)
(d) Describe how any five kitchen utensils can be used to measure ingredients and state their equivalent measures in metric terms? (4marks)

5. (a) A school in the rural areas of Wakiso district use water from a bore hole to do their laundry.
- (i) Describe the effect of using bore hole water for laundry? (6marks)
 - (ii) Explain the measures that can be taken to solve the mentioned problems above? (4marks)
- (b) Describe the operation of direct hot water supply system with an illustration? (7marks)
- (c) With aid of a diagram, explain how a flash toilet works? (8marks)
6. (a) Distinguish between a lever and pulley? (4marks)
- (i) How are pulleys utilized to do work? (5marks)
 - (ii) What advantage do fixed pulleys have over movable pulleys? (3marks)
- (b) Illustrate the following applications and state the class of lever in each case?
- (i) Nut cracker (1mark)
 - (ii) Spade (1mark)
 - (iii) Wheelbarrow (1mark)
 - (vi) Plier (1mark)
- (c) Explain how you would use a spring weighing scale? (5marks)
- (ii) What points would you consider when buying a weighing scale? (4marks)

END