P640/2
FOODS AND NUTRITION
PAPER 2
2 ½ HOURS

STANDARD HIGH SCHOOL ZZANA

Uganda Advanced Certificate of Education

MID TERM I EXAMINATIONS, 2020
FOODS AND NUTRITION
(With science in the home)
PAPER 2
TIME: 2 ½ Hours

INSTRUCTIONS

- This paper consists of **six** questions.
- Answer any **four** questions.
- All questions carry equal marks.
- Any additional question(s) answered will **not** be marked.
- FORWARD SCANNED ANSWERS TO stahiza2020@gmail.com

1. (a) What do you understand by the following terms?
   (i) Kilowatt hour
   (ii) Voltage
   (iii)Ampere
   (iv)Wattage
   (v) Resistance (05marks)

   (b) (i) What is static electricity? (01mark)
   (ii) Static electricity can be both useful and dangerous in the home. Discuss. (09marks)

   (c)(i) Explain how electricity is produced by chemical reaction. (03marks)
   (ii) State the applications of chemical electricity. (03marks)
   (iii) Explain how this effect has been useful during the corrosion of metals. (04marks)

2. (a) What is a fuse? State the ways that can lead to a fuse to blow. (06marks)
   (b)(i) How can you test for a blow cartridge fuse? (03marks)
   (ii) The following appliances are connected to a 13A standard fused plug: electric kettle 1KW, electric fire 2KW and a coffee percolator 750W. What happens when all appliances are in operation together? (04marks)
   (c) Calculate the cost of running eight 60W lamps, 600W refrigerator and 800W hot plate using a 240V main supply for 3hours daily for 15 days.
   The cost of electric energy is rated shs 150 for the first 30 units and shs 100 for the rest of the total units.
   (d) Explain how a circuit breaker operates as a protective device in domestic electrical installation and state its advantages. (06marks)

3. (a)(i) Define evaporation and boiling. (02marks)
   (ii) Differentiate between boiling and evaporation. (05marks)
   (b) Describe the working principle of the absorption type of refrigerator. (06marks)
   (c) What precautions should be taken to maintain the efficiency of a refrigerator? (07marks)
   (d) State the applications of distillation in the home and food industry. (05marks)

4. (a) Describe the scientific principle underlying the working of a sprinkle fire extinguisher. (04marks)

   (b) To what extent is evaporation useful in the home? (07marks)

   (c) Explain the scientific principles underlying the following;

   (i) Hot water floats on cold water. (02marks)

   (ii) Bursting of water pipes during winter. (02marks)

   (iii)Frozen food deteriorates quickly after thawing. (02marks)

   (iv)A fainted person lies with the feet raised above his head. (02marks)

   (v) Head space in bottled drinks. (02marks)

   (d) Explain the working mechanism of a vacuum flask. (04marks)

5. (a) Describe the construction and working principle of a fluorescent the tube. (06marks)

   (b) Identify the advantages and disadvantages and disadvantages of fluorescent lamps. (06marks)

   (c) What is meant by the term glare? How can it be minimized in the room? (07marks)

   (d) State the characteristics of good lighting. (06marks)

6. (a)(i) State the characteristics of colour. (03marks)

   (ii) What is the difference between a colour wheel and colour scheme? (02marks)

   (b) Explain the following colour schemes;

   (i) Monochromatic clolour shecme. (03marks)

   (ii) Complementary colour scheme. (04marks)

   (d) Describe the working principle of the agitator washing machine. (07marks)

END