UNIVERSITY OF EDUCATION, WINNEBA
INSTITUTE FOR TEACHER EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT
(ITECPD)
END-OF-SECOND-SEMESTER EXAMINATION (August 2021)

COURSE CODE: EGS 123
COURSE TITLE: INTRODUCTION TO INTEGRATED SCIENCE II
TIME ALLOWED: 50 MINUTES

STUDENT'S INDEX NUMBER:
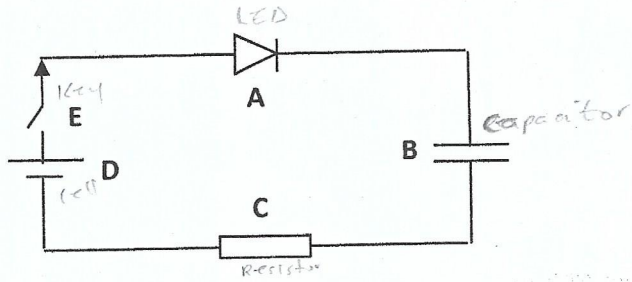
NAME OF COLLEGE:

GENERAL INSTRUCTIONS:
- **This paper is made up of ONE SECTION.**
- *Section ONE is made up of four essay type questions.*
- *Answer TWO questions in your answer booklet.*
- *Each question carries equal marks. You are expected to start each question from a new page.*
- *You are expected to handover your answer booklet to the invigilator before you leave the examination hall.*

SECTION TWO

1. a) The kinetic energy of a moving tricycle is 5kJ. If the mass of the tricycle is 10kg, calculate its velocity. [3 marks]

   b) Explain the following terms and give one example of each:
      i. Non-renewable energy sources [2 marks]
      ii. Renewable energy resources [2 marks]

   c) Outline three contributions of science and technology to food and nutrition. [3 marks]

2. Two resistors of resistances 3Ω and 4Ω are connected in a circuit containing a 2v battery. Calculate the current in the circuit when the resistors are connected in:
   a) Series [3 marks]
   b) Parallel [3 marks]
   c) Malaria is a common parasitic disease in Ghana. Provide the following information as related to the disease:
   i.   Causative organism
   ii. Vector
   iii. Two ways of preventing malaria. [4 marks]

3. a) Identify the electronic components A,B,C,D and E in the circuit diagram below and give the function of each.

LED

A

E   Key

D   Cell

B   Capacitor

C   Resistor

[5 marks]

b) Outline three contributions of science and technology to health.   [3 marks]

c) In what two ways can information on the environment be disseminated to the public?   [2 marks]

4. a) Define *Health* according to World Health Organization.   [2 marks]

b) First aid administration is a practice which is recommended in schools. Outline four reasons for administering first aid.   [4 marks]

c) Explain the following and give one example for each:

i. Primary industry

ii. Secondary industry   [4 marks]