



UNIVERSITY OF EDUCATION, WINNEBA
 INSTITUTE FOR TEACHER EDUCATION AND CONTINUING
 PROFESSIONAL DEVELOPMENT (ITECPD)
 END-OF-SECOND-SEMESTER EXAMINATIONS, OCTOBER, 2023



LEVEL 100

COURSE CODE: EGS 123

COURSE TITLE: INTRODUCTION TO INTEGRATED SCIENCE II

TIME ALLOWED: 2 HRS

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GENERAL INSTRUCTIONS:

- This paper is made up of ONE SECTION.
- The Section is made up of five essay type questions.
- Answer any THREE questions in your answer booklet.
- Each question carries equal marks. You are expected to start each question on a new page.
- You are expected to hand over your answer booklet to the invigilator before you leave the examination hall.

Instruction: Answer any three (3) questions in the answer booklet provided.

1a Explain the concept mechanical energy. [2marks]

1b. Explain the following forms of energy and give **one (1)** example each:

i. α : sound energy

ii. β : heat energy

iii. γ : kinetic energy.

[6 marks]

1c. What is the energy transformation in the following activities?

i. A toaster is used to toast some pieces of bread.

ii. An athlete running a 100m race.

iii. Turning on a television set to listen to news.

iv. A coconut dropping from its stalk.

[8 marks]

1d. Classify the following resources under renewable and non-renewable resources. Coal, gas, water, sunlight, uranium, wind, plant and gold. [4marks]

2a. Explain **three (3)** effects of human activities on the environment. [6 marks]

2b. Explain the following concepts as they are use in disease and its control

- i. Communicable Disease
- ii. Causative agent
- iii. Haemorrhage

[6 marks]

2c. Identify **four (4)** risks factors and their remedies associated with personal hygiene. [8 marks]

3a. i. Explain the concept first aid. [2 marks]

ii. State any **four (4)** conditions that call for first aid. [4 marks]

3b. List the **six (6)** groups in which diseases can be classified and give an example for each group. [6 marks]

3c. List and explain **four (4)** ways of ensuring good personal hygiene [8 marks]

4a. Explain **two (2)** negative effects of science md technology on the environment. [4 marks]

4b. Discuss **four (4)** importance of industry to the economy of Ghana. [8 marks]

4c. Give four (4) differences between technology and science [8marks]

5a. A mango fell from the branch. If it fell with a velocity of 4m/s and has a mass of $15.1 \times 10^3\text{g}$. Find the kinetic energy of the mango fruit just before it hits the ground. [5 marks]

5b. Identify **four (4)** artefacts that should be included in the student-teacher's portfolio. [4 marks]

5c. Provide **two (2)** differences between deforestation and afforestation [3 marks]

5d. A colleague learner of yours believes that Science and Technology has caused more harm than good and therefore suggests the Science Curriculum for Colleges of Education should not promote Science and Technology. Explain **four (4)** reasons why you support such an assertion. [8 marks]

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