



UNIVERSITY OF EDUCATION, WINNEBA
INSTITUTE FOR TEACHER EDUCATION AND
CONTINUING PROFESSIONAL DEVELOPMENT
(ITECPD)



END-OF-SECOND-SEMESTER EXAMINATION (August 2021)
COURSE CODE: PBI 242
COURSE TITLE: INTEGRATED SCIENCE II FOR UPPER PRIMARY.
TIME ALLOWED: 50 MINUTES

STUDENT'S INDEX NUMBER:

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GENERAL INSTRUCTIONS:

- This paper is made up of ONE SECTION.
- Section ONE is made up of thirty (30) multiple-choice items.
- Each question carries 1 mark. You are expected to CIRCLE the letter corresponding to the correct option to each question with a pen or pencil.
- Answer all questions on the question paper.
- You are expected to handover your question paper to the invigilator before you leave the examination hall.

SECTION ONE

1. a) The kinetic energy of a moving vehicle is 500Joules, if the mass of the vehicle is 10kg. Calculate the velocity of the moving vehicle. (3 marks)
i) State any two (2) process skills in the basic school science curriculum (2 marks)
ii) State three effects of forces. (3 marks)
iii) Define the following terms
 α.) solute (1 mark)
 β) solvent (1 mark)
2. a) Describe what a solid-liquid mixture is and give an example of it. (2 mark)
b) i) You have been given a mixture of salt, sand and iron filings. List three laboratory methods you could use to separate these substances (3 marks)
ii) Write down the S.I unit of energy (1 mark)
c) What is the immediate form of energy into which the following would be converted?
 i. Turbine (1 mark)
 ii. Dynamo (1 mark)
 iii. Loudspeaker (1 mark)
 iv. Light bulb (1 mark)

3. a) i) Energy can be categorized into renewable and non-renewable resources. State three differences between renewable and non-renewable resources (3 marks)
- ii) Identify two functions of a satellite (2 marks)
- bi) State any three examples of non-contact force (3 marks)
- ii) Explain what is meant by friction (2 marks)
4. a) State three effects of forces. (3 marks)
- b) How much force is required to accelerate a 1600 kg car at 3.50 m/s^2 (2 marks)
- c) Give two differences between a natural satellite and an artificial satellite (2 marks)
- d) A box has a mass of 5.5kg is lifted from the floor and placed on a shelf. If the box gains 155J of Potential Energy, how high is the shelf? (3 marks)

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