



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



END OF SECOND SEMESTER EXAMINATIONS, OCTOBER, 2024

LEVEL: 400

COURSE CODE: JBI 481

COURSE TITLE: CHEMISTRY AROUND US

TIME ALLOWED: 2 HRS

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GENERAL INSTRUCTIONS:

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- 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 will need manuscript sheets for this paper.
- 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.

Q1.

A. Explain what 'electrolytes' in the human body are, to a Level 100 learner and give two examples. (8 marks)

B. What are **four (4)** of the key roles that electrolytes play in biological systems? (12 marks)

Q2.

- A. Discuss the impact of climate change on food production in your community or Ghana as a whole and the possible resolutions. **(16 marks)**
- B. What is a chemical bond? Illustrate this with an example of a named bond. **(4 marks)**

Q3.

- A. Galamsey is destroying most of Ghana's water bodies. Why is it important that we conserve our water bodies? **(10 marks)**
- B. Explain the difference between a polar covalent bond and a nonpolar covalent bond to a Level 100 learner. **(10 marks)**

Q4.

- A. Match the compound in Column A with their bond type in Column B

	Compound	Bond type
i.	Potassium chloride KCl	Covalent bond
ii.	Sulphur dioxide SO ₂	Ionic bond
iii.	Sodium Na	Coordinate covalent bond
iv.	Ammonium Chloride NH ₄ Cl	Metallic bond

- B. What is water vapour? Outline in four steps how this could be demonstrated to JHS 1 learners.

Q5.

- A. What is the importance of chemical bonding in industry? **(4 marks)**
- B i. Discuss how pH influences farming **(8 marks)**
- ii Explain how water vapour affects climate change. **(8 marks)**



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