

OCTOBER 2023
EBS 115
GENERAL CHEMISTRY THEORY I
30 MINUTES

Candidate's Index Number
Signature:

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
FIRST YEAR, SECOND SEMESTER MID-SEMESTER QUIZ, SEPT/OCT 2023

5TH OCTOBER 2023 GENERAL CHEMISTRY THEORY I 5:30 PM – 6:00 PM

Answer ALL the questions.
[20 MARKS]

1. Classify the following in their aqueous states as acids, bases or salts.
NaOH, NaCl, HCl, CaCl₂, HNO₃, CH₃COOH

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- 2.
- a. A shell that has a principal quantum number of 3, thus, ($n=3$) is described as
 - b. The first scientific theory of atomic structure was proposed by
 - c. The maximum number of electrons in d -subshell is
 - d. The maximum number of electrons that $2p$ subshell can hold is

3. Copy and complete the table below with the significance of the quantum numbers:

Quantum Number	Significance
(a) Principal quantum number (n)	
(b) Azimuthal quantum number (l)	
(c) Magnetic quantum number (m)	
(d) Spin quantum number (s)	

4. After Rutherford experiment with the gold foil and the alpha particle, what conclusion did he make about the atom?

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5. State any **three** of the postulates of Dalton's atomic theory.

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