



ELIZADE UNIVERSITY

ILARA – MOKIN

NIGERIA

FACULTY OF BASIC AND APPLIED SCIENCES

DEPARTMENT OF PHYSICAL AND CHEMICAL SCIENCES

2020/2021 ACADEMIC SESSION: FIRST SEMESTER EXAMINATIONS

COURSE TITLE: ORGANIC CHEMISTRY I

COURSE CODE: CHM 203

QUESTIONS WITH MARKING GUIDE

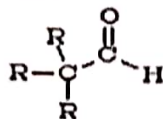
SECTION A

ANSWER TWO QUESTIONS FROM THIS SECTION

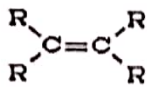
QUESTION ONE [15 Marks]

- A. Write out the names of the following classes of organic compounds [5 Marks]

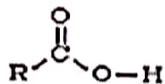
I. $R-O-H$



II.



III.



IV.

V.



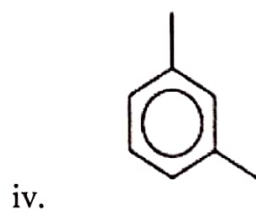
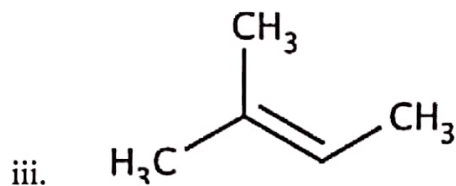
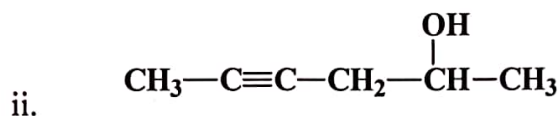
- B. State 4 characteristics of Homologous series [4 Marks]

C. Why is empirical formula different from molecular formula ?

[2 Marks]

D. Give the IUPAC name of the following organic compounds

[4 Marks]



QUESTION TWO [15 Marks]

A. Define isomerism

[1 Mark]

B. Write short notes on the terms below

[8 Marks]

- I. Dextrorotatory
- II. Enantiomers
- III. Optical activity
- IV. Achiral

C. Free radical chlorination of (*S*)-(-)-1-chloro-2-methylbutane gave six fractions of formula $\text{C}_5\text{H}_{10}\text{Cl}_2$. Four fractions were found to be optically active, and two fractions optically inactive. Draw structural formulas for the compounds making up each fraction. Account in detail for optical activity or inactivity in each case.

[6 Marks]