



ELIZADE UNIVERSITY

ILARA-MOKIN

ONDO STATE

FACULTY: BASIC AND APPLIED SCIENCES

DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES

FIRST SEMESTER EXAMINATIONS

2016/2017 ACADEMIC SESSION

COURSE CODE: CHIM 303

COURSE TITLE: Organic Chemistry II

DURATION: 2 hours

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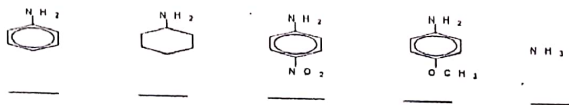
HOD'S SIGNATURE

TOTAL MARKS: 60

INSTRUCTION: Answer only three questions

Question One.

- Account for the reason why amines are similar to ammonia in their reactions [2marks]
- Explain the following trends observed in the basicity of amines
 - Aliphatic amines have higher basicity than ammonia [6marks]
 - Aromatic amines are less basic than aliphatic amines [3marks]
- Arrange the following amines in decreasing order of base strength [5marks]



- With suitable illustrations differentiate between symmetrical and unsymmetrical ethers [2marks]
 - What are epoxides?. Why are they more reactive than aliphatic ethers [2marks]

Question Two.

- Differentiate between fats and oils. [2marks]
- Classify each of the following fatty acids either as a saturated or unsaturated fatty acids: Linoleic, Lauric, oleic, myristic, palmitic, linolenic, stearic [2marks]
 - Which of the two in question 2b(i) will contain more unsaturated fatty acids? [1 mark]
- Enumerate the various chemical analyses that can be used to indicate the types of fatty acid present in fat or oil samples. Give a concise definition of each of them. [8marks]
- Classify the following alcohols as primary, secondary or tertiary.
 - 2-propanol [1mark]
 - 4-methyl pentanol [1mark]
 - 2,3-dimethylbutan-2-ol. [1mark]
 - Name a simple test to distinguish 1°, 2° and 3°. State the reagents and conditions required for the test and write down the expected observation. [4marks]

Question Three.

- Identify the classes of alcohols in the following reactions and predict the product obtainable from each reaction.

