



# **KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS  
2020/2021 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER  
SUPPLEMENTARY EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE**

**COURSE CODE: SCH 314**

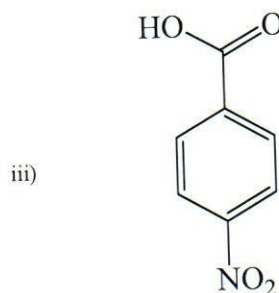
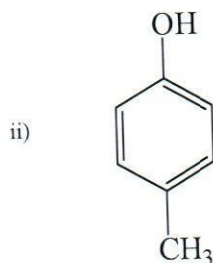
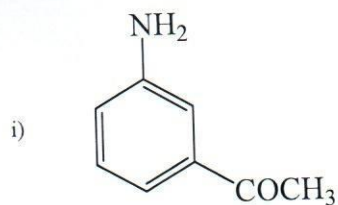
**COURSE TITLE: CHEMISTRY OF AROMATIC COMPOUNDS**

**DATE: 11/1/2022**

**TIME: 11-1PM**

1(a) List the four conditions for aromaticity in organic compounds [4mks]

1(b) Give the names of the following compounds [6mks]



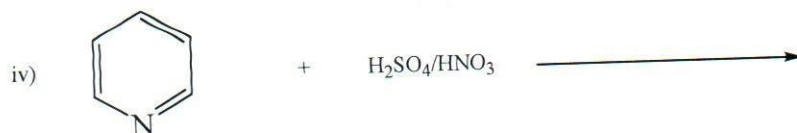
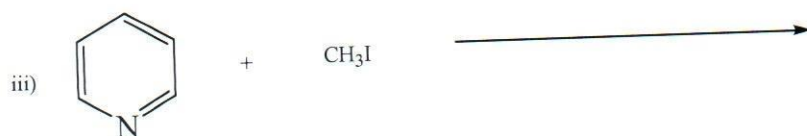
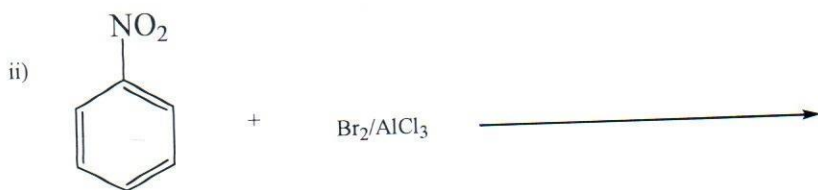
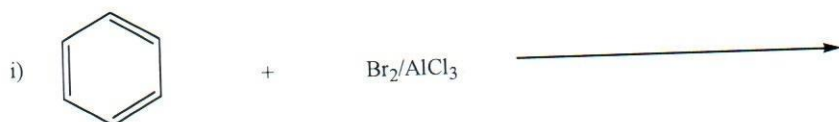
1(c) Draw correct structure of the the following compounds [6mks]

(i) 4-Amino pyridine

(ii) 2-Phenyl thiophene

(iii) 3-bromo furan

1(d) Predict the products of the following reactions [8mks]

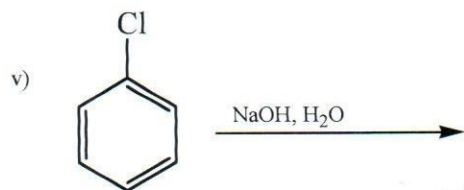
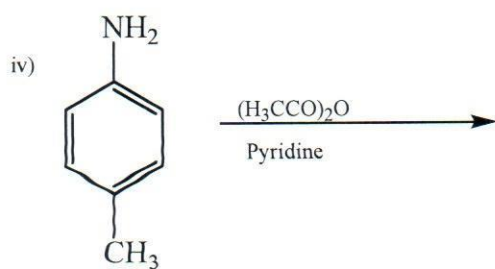
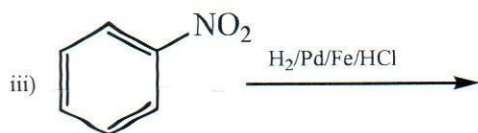
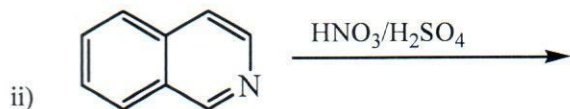


1(e) Predict the mechanism of the following reactions [6mks]



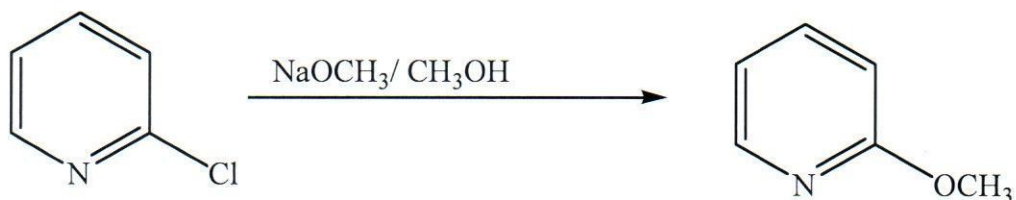
### QUESTION TWO

2(a) Give the products of the following reactions [10mks]



2(b) Compare the reactivity of alkylhalides and aryl halides [5mks]

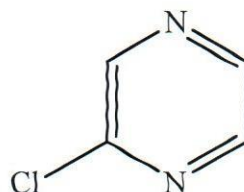
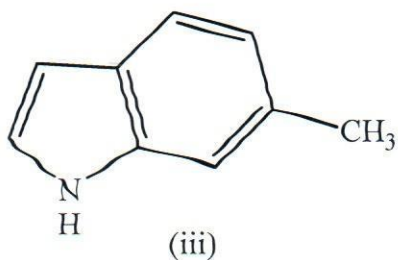
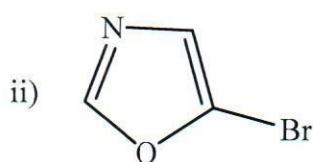
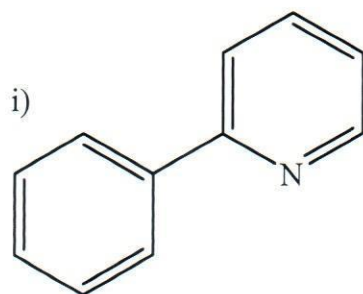
2(c) Predict the mechanism of the following reaction [3mks]



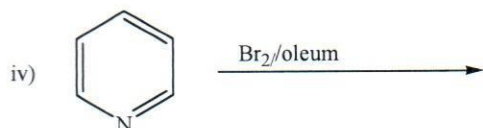
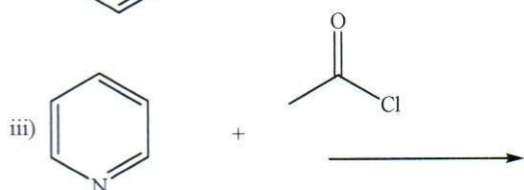
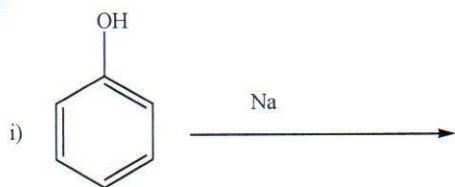
2(d) List two properties of anilines [2mks]

### QUESTION THREE

3(a) Name the following compounds [8mks]



3(b) Predict the products of the following reactions [8mks]



3(c) Explain two factors that affect the basicity of anilines [4mks]

#### QUESTION FOUR

4(a) Using a specific example, illustrate the alkali fusion reaction in preparation of phenols [6mks]

(b) Explain the application of williamsom reaction in organic synthesis [6mks]

(c) Predict the products of the following reactions [8mks]