

S.Y.B.SC. SEM – IV (2014 COURSE) : SUMMER - 2018
SUBJECT : CHEMISTRY : ORGANIC & INORGANIC CHEMISTRY – IV (C – 42)

Day : **Saturday**
Date : **21/04/2018**

S-2018-0725

Time : **03.00 PM TO 05.00 PM**
Max. Marks : 40

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

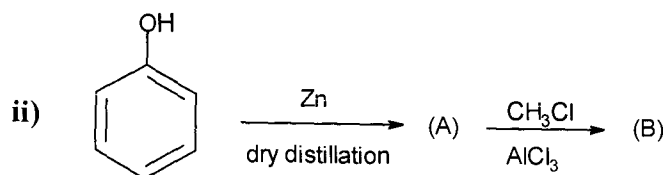
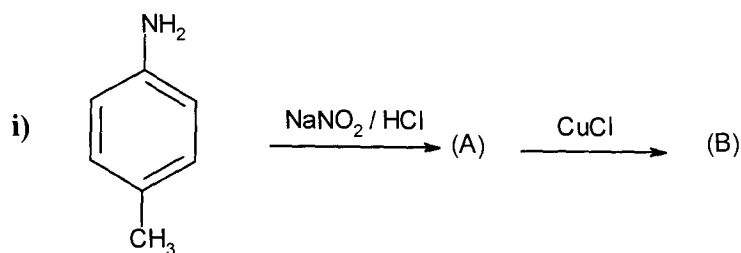
SECTION – I

Q.1 Attempt **ANY TWO** of the following: **[10]**

- a) What are the reactions of following reagents on glucose :
i) Dilute HNO_3 ii) Phenyl hydrazine (excess)
- b) Give specific use of following reagents with examples:
i) $\text{NaNO}_2 / \text{HCl}$ ii) SOCl_2 iii) Sn/HCl
- c) Write a note on green solvents.

Q.2 Attempt **ANY ONE** of the following: **[05]**

- a) What are disaccharides? Give a brief account of sucrose.
- b) Predict the products:



Q.3 Attempt **ANY TWO** of the following: **[05]**

- a) Write a mechanism for nitration of benzene using mixed acid.
- b) Discuss the microwave technique used in green chemistry.
- c) Write any two methods for the preparation of aromatic amino compounds.

P.T.O.

SECTION – II

Q.4 Attempt **ANY TWO** of the following: [10]

- a) What are hard and soft acids and bases with suitable examples?
- b) Define the terms: i) Monomer ii) Polymer iii) Copolymer
iv) Degree of polymerization v) High polymer
- c) Define hydrogen bonding and explain its effect on 'Physical state' of the substances

Q.5 Attempt **ANY ONE** of the following: [05]

- a) Describe Magnesium based antacids with examples.
- b) What is 'solvent system' concept of acids and bases? Explain its advantages and disadvantages.

Q.6 Attempt **ANY TWO** of the following: [05]

- a) Write a note on 'Sulphur containing Polymers'.
- b) Describe in brief Lewis concept of acids and bases.
- c) Explain the importance of : i) Iron ii) Zinc as nutrients

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