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SUBJECT CODE NO: - BNP-2681
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (NEP) (P-2024) S.Y Sem III
Examination November / December 2025
Chemistry Organic Chemistry

[Time: 1:00 Hours]

[Max. Marks: 30]

Please check whether you have got the right question paper.

N. B

- i) Question No. 1 Compulsory.
 ii) Attempt **any four** from Q.2 to Q.7.
 iii) Figures to the right indicate full marks

Part-A**Q1 Attempt all MCQs****10**

- Which of the following reagent used for Friedel crafts reaction?
 a) conc. H_2SO_4 b) conc. HNO_3 c) Anhyd $AlCl_3$ d) $FeCl_3$
- Which of the following intermediates involves in Sandmeyer reaction?
 a) carbocation b) carbanion
 c) free radical d) Benzyne
- The correct order of acidity of primary (1°), Secondary (2°) and tertiary (3°) alcohol is
 a) $3^\circ > 2^\circ > 1^\circ$ b) $2^\circ > 3^\circ > 1^\circ$ c) $1^\circ > 2^\circ > 3^\circ$ d) $1^\circ > 3^\circ > 2^\circ$
- Nitration of phenol with conc. HNO_3 gives ____
 a) O-Nitrophenol b) P-nitrophenol
 c) Both (a) and (b) d) 2,4,6-trinitro phenol
- In aldehyde and ketones, carbon of carbonyl group is ____
 a) sp^2 hybridised b) sp^3 hybridized
 c) sp hybridised d) Unhybridized.

Part - B

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|---|-----------|
| Q2 Explain sulphonation and Nitration of Benzene. | 05 |
| Q3 Explain Sandmeyer reaction in detail | 05 |
| Q4 How will you prepare primary and Secondary alcohol from Grignard reagent? | 05 |
| Q5 How will you prepare phenol from?
a) cumene b) Benzene diazonium salt | 05 |
| Q6 Explain in detail Aldol condensation reaction. | 05 |
| Q7 How will you prepare ethanoic acid from
a) CH_3CN b) $CH_3COOC_2H_5$ | 05 |