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SUBJECT CODE NO: -BB-2391
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc (CBCGS)(Pattern 2022) S.Y SEM III
Examination November / December 2024
Chemistry-VII Organic Chemistry

[Time: 1:30 Hours]

[Max. Marks:40]

N. B

"Please check whether you have got the right question paper."

- 1) Attempt all questions
- 2) Figures to the right indicate full marks

Q.1 Write the correct option for each of the following question.

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- 1) The reducing agent used in Clemmensen's reaction is _____.

- | | |
|----------------|---------------------------------|
| (a) Zn- Hg/HCl | (b) $\text{NH}_2 - \text{NH}_2$ |
| (c) Li/Ni | (d) Eglycol, KOH. |

- 2) Aldol condensation of acetaldehyde result in the formation of _____.

- | | |
|--|--|
| (a) $\text{CH}_3 - \overset{\text{O}}{\parallel} \text{C} - \text{OH}$ | (b) $\text{CH}_3 - \underset{\text{OH}}{\text{CH}} - \text{CH}_2 - \text{CHO}$ |
| (c) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 \text{CHO}$ | (d) $\text{CH}_3\text{CH}_2 - \text{OH} + \text{CH}_3\text{COOH}$ |

- 3) Benzaldehyde reacts with KCN to give _____.

- | | |
|--|---|
| (a) $\text{C}_6\text{H}_5 \text{CH} = \text{NH}$ | (b) $\text{C}_6\text{H}_5 - \text{CH} = \text{NCH C}_6\text{H}_5$ |
| (c) $\text{C}_6\text{H}_5 \text{CH} (\text{OH}) \text{NH}_2$ | (d) $\text{C}_6\text{H}_5 \text{CHOH} - \underset{\text{O}}{\parallel} \text{C} - \text{C}_6\text{H}_5$ |

- 4) Acetic acid can be obtained by treating $\text{CH}_3 \text{Mg} - \text{I}$ with _____.

- | | |
|--|-------------------|
| (a) $\text{CH}_3 \text{CHO}$ | (b) CO_2 |
| (c) $\text{CH}_3 - \text{CH}_2 - \text{CHO}$ | (d) All of these |

- 5) Which of the following is not a saturated fatty acid?

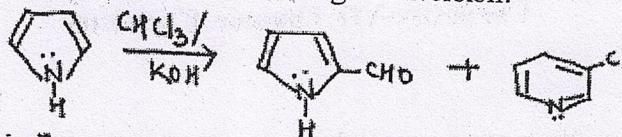
- | | |
|------------------|-------------------|
| (a) Lauric acid | (b) Myristic acid |
| (c) Stearic acid | (d) Oleic acid. |

- 6) Which of the following has more basic character _____.

- | | |
|---------------------------------|--|
| (a) NH_3 | (b) $\text{CH}_3 \text{NH}_2$ |
| (c) $(\text{CH}_3)_2 \text{NH}$ | (d) $\text{C}_6\text{H}_5 \text{NH}_2$ |

- 7) In boat conformation of cyclohexane, the 12- hydrogen are of _____
 (a) Two Types (b) Three types
 (c) Four types (d) All of these

- 8) Which reaction is employed in following Conversion?



- (a) Friedal craft reaction (b) Reimer- Tiemann reaction
 (c) Chichibabin reaction (d) None of these
- 9) In tautomerism, which of the following compound do you expect will contribute Highest- Percentage of enol form?
 (a) Acetone (b) Ethyl acetoacetate
 (c) Ethyl acetate (d) Succinic acid

- 10) Which of the following is a five membered heterocyclic compounds?
 (a) Pyridine (b) Pyrrole
 (c) Tropone (d) Benzene

Q.2 Solve any three of the following

- (a) Explain Cannizzaro's reaction with mechanism.
 (b) How Carboxylic acids prepared from _____
 (a) Acid hydrolysis (b) Alkali hydrolysis
 (c) Explain electrophilic substitution reaction in furan
 (d) Discuss aromatic electrophilic reaction of Aniline.
 (e) Give various conformations of cyclohexane. Explain, why chair form more stable than the boat form
 (f) Discuss synthetic applications of diethyl malonate.



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Q.3 Solve any five of the following.

- a) Explain clemmensen's reaction.
 b) Give the method for Preparation of Ketone from secondary alcohol.
 c) Give classification of carboxylic acids.
 d) Discuss Sandmeyer reaction.
 e) Explain factors affecting on stability of cycloalkanes.
 f) Discuss chichibabin reaction
 g) Explain basicity of Pyrrole and pyridine.
 h) Give any two example of active methylene Compounds
