

Total No. of Printed Pages:02

**SUBJECT CODE NO:- 2005**  
**FACULTY OF SCIENCE AND TECHNOOGY**  
**B.Sc. S.Y Sem. III**  
**EXAMINATION JUNE/JULY 2022**  
**Chemistry Paper-VII**  
**(Organic Chemistry)**

[Time: 1:53  
Hours]

[Max. Marks: 50 ]

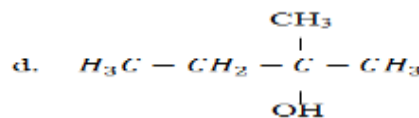
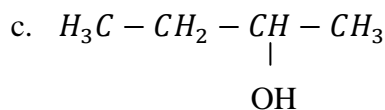
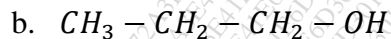
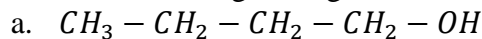
N.B Please check whether you have got the right question paper.

- N.B
1. Attempt all questions.
  2. Use blue or black pen only.

- Q.1A) 1. Explain Reimer-Tieman reaction with suitable mechanism 06  
 2. Give any two methods of preparation of ethylene glycol. 04
- B) 1. Explain Hell-volhard zeilinstcy reaction with mechanism. 06  
 2. Pina col-pina colone rearrangement, Explain. 04
- OR
- C) Explain with Mechanism of Baeyervilleger oxidation of cyclic ketone. 10
- D) How will you prepare acetic acid from 10
- 1) CO<sub>2</sub>
  - 2) Nitrile
  - 3) Ester
  - 4) Amide
  - 5) Acid Chloride
- Q.2A) Explain the reduction of Nitrobenzene in acidic, basic and natural media. 10
- B) Explain with mechanism Hoffmannbromide reaction. 10
- OR
- C) Write short note on (any four) 20
- 1) Intermolecular fries rearrangement
  - 2) Acidic Nature of alcohols
  - 3) Reaction of amine with Nitrous acid
  - 4) Decorboxylation of carboxylic acid
  - 5) Ndol condensation
  - 6) Mannish reaction

Q.3 Choose and Write the correct answer of the following questions. (answer all questions)

1) Which of the following having maximum Pka value



2) The product of fries reaction is \_\_\_\_\_

a. O- Hydroxy

b. O-Hydroxy acid

c. P- Hydroxy acid

d. M- Hydroxy acid

3) The carbon atom of carbonyl compound is \_\_\_\_\_

a.  $SP^2$  - Hybridized

b.  $SP^3$  - Hybridized

c.  $SP$  - Hybridized

d.  $SP^3 d$  - Hybridized

4) Which of the following is the strongest acid.

a. Benzoic acid

b. P-Methoxy benzoic acid

c. P-Nitro benzoic acid

d. P- methyl benzoic acid

5) The carboxylic acid that under goes decarboxylation most readily under mild conditions is

a. Acetic acid

b. Benzoic acid

c.  $\beta$  - keto carboxylic acid

d. All of these

6) Claisen rearrangement is carried out in presence of \_\_\_\_\_

a. Base

b. Acid

c. Heat

d. All of above

7)  $\beta$  - amino carbonyl compound is the product of \_\_\_\_\_

a. Mannich reaction

b. Benzoin condensation

c. Knoerengel condensation

d. Gatlernan reaction

8) Which of the following doesnot given HVZ reaction ?

a. Acetic acid

b. Phenyl acetic acid

c. Benzoic acid

d. Butyric acid

9) Vicinal diols can be prepared by \_\_\_\_\_

a. Oxidation of alkanes with  $O_5O_4$

b. Oxidation of alkene with  $O_5O_4$

c. Reduction of alkanes with  $O_5O_4$

d. Reduction of alkenes with  $O_5O_4$

10) Which of the following does not show aldol condensation?

a. Mono -chloro acetaldehyde

b. Tri -chloro acetaldehyde

c. Acetaldehyde

d. Acetone