



A Charutar Vidya Mandal's Institution
V. P. & R. P. T. P. SCIENCE COLLEGE
 (AUTONOMOUS) (Grant-in-Aid)
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 VALLABH VIDYANAGAR-388120



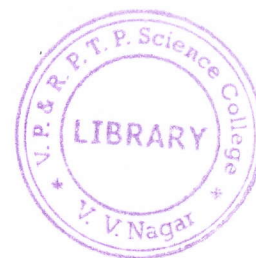
Bachelor of Science (Semester II)
Subject : Basic Organic Chemistry – II
Date: 11TH APRIL 2025, FRIDAY

External Examination : APRIL, 2025
Subject Code : US02SECHE11
Time: 2:00 PM to 3:30 PM
Total marks : 25

Note: (i) All questions are to be attempted.
(ii) Figures to the right indicate marks of the question.

Q-1 Write the most appropriate answer from the following multiple choice questions. [05]

- (i) Which of the following product is obtained upon oxidation of 1° alcohol ?
 (a) Aldehyde (b) Carboxylic acid
 (c) Ketone (d) Both (a) and (b)
- (ii) Which of the following is molecular formula of Benzyl alcohol ?
 (a) C₇H₈O (b) C₈H₉O
 (c) C₉H₉O (d) None of these
- (iii) p - Nitroso - N,N - dimethylaniline is _____ type of amine.
 (a) 1° (b) 3°
 (c) 2° (d) None of these
- (iv) Which of the following is molecular formula of p - Nitrobenzoic acid ?
 (a) C₇H₆NO₂ (b) C₇H₆NO₃
 (c) C₇H₅NO₃ (d) None of these
- (v) Which of the following is IUPAC name of Valeric acid ?
 (a) Butanoic acid (b) Propanoic acid
 (c) Hexanoic acid (d) Pentanoic acid



Q-2 Answer the following.

- (i) Write structure for the following and classify them as 1°, 2° and 3° alcohol. [04]
 (a) 2 - Methyl - 1 - propanol (b) 3 - Methyl - 2 - butanol
 (c) 2 - Methyl - 2 - propanol (d) 2,2 - Dimethyl - 1 - propanol
- (ii) Write synthesis for the following. [06]
 (a) Sec. butyl alcohol from Ethyl alcohol
 (b) 3 - Methyl - 1 - butene from 3 - Methyl - 1 - butanol
 (c) 2 - Methyl - 2 - hexanol from n - butyl alcohol

OR

Q-2 Answer the following.

- (i) Discuss oxidation reaction of alcohol. [04]
- (ii) Write synthesis for the following. [06]
 (a) o - Bromotoluene from Toluene (b) Benzylamine from Toluene
 (c) p - Toluic acid from Toluene

[PTO]

Q-3 Answer the following.

- (i) Write structure for the following and give their IUPAC name. [03]
(a) Propionaldehyde (b) Diethyl ketone (c) γ - Methylvaleraldehyde
- (ii) Write reaction and reaction mechanism for base promoted halogenation of ketone. [03]
- (iii) Write synthesis for the following. [04]
(a) 3,5 - Dinitrobenzoyl chloride from 3,5 – Dinitrobenzoic acid
(b) 2,4,6 - Trimethylbenzoic from Mesitylene

OR

Q-3 Answer the following.

- (i) Write structure for the following and give their IUPAC name. [03]
(a) Acetic acid (b) γ – Phenylbutyric acid (c) α - Bromopropionic acid
- (ii) Write reaction and reaction mechanism for acid promoted halogenation of ketone. [03]
- (iii) Write synthesis for the following. [04]
(a) n - Butyl alcohol from Acetaldehyde
(b) 4 - n - Hexylresorcinol from Resorcinol

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