

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



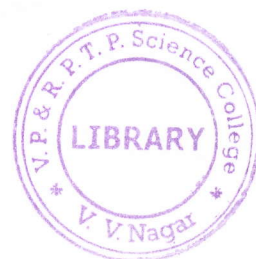
Bachelor of Science (Semester II)
Subject : Basic Organic Chemistry - II
Date: 7TH March, 2025, Friday

Internal Examination : March, 2025
Subject Code : US02SECHE11
Time: 12:45 PM to 1:45 PM
Total marks : 20

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. [06]

- (i) Which of the following is molecular formula of Benzyl alcohol.
 (a) C_7H_8O (b) C_7H_9O
 (c) C_8H_9O (d) None of these
- (ii) Which of the following product is obtained upon oxidation of 2° alcohol.
 (a) Aldehyde (b) Carboxylic acid
 (c) Ketone (d) None of these
- (iii) N - Ethyl - N - methylaniline is _____ type of amine.
 (a) 1° (b) 2°
 (c) 3° (d) None of these
- (iv) Reduction of Cyclopentanone is giving _____.
 (a) Cyclopentane (b) Cyclopentene
 (c) Cyclopentanol (d) None of these
- (v) Which of the following is molecular formula of Butanedioic acid.
 (a) $C_4H_6O_4$ (b) $C_4H_6O_2$
 (c) $C_4H_8O_4$ (d) None of these
- (vi) Which of the following is IUPAC name of Valeric acid.
 (a) Butanoic acid (b) Pentanoic acid
 (c) Hexanoic acid (d) None of these



Q-2 Answer the following.

- (i) Write structure for the following and classify them as 1°, 2° and 3° alcohol. [03]
 (a) 2 - Methyl - 1 - pentanol (b) 3 - Methyl - 2 - butanol (c) 2 - Methyl - 2 - propanol
- (ii) Write synthesis for the followings. [04]
 (a) Sec. butyl alcohol from Ethyl alcohol
 (b) 2 - Methyl - 2- hexanol from n - butyl alcohol

OR

Q-2 Answer the following.

- (i) Write reaction and reaction mechanism for Pinacol rearrangement. [03]
- (ii) Write synthesis for the followings. [04]
 (a) o - Bromotoluene from Toluene (b) p - Toluic acid from Toluene

[PTO]

Q-3 Answer the following.

- (i) Write structure for the following and give their IUPAC name. [03]
(a) Acetaldehyde (b) β – Methylvaleraldehyde (c) Diethyl ketone
- (ii) Write synthesis for the followings. [04]
(a) 2,4,6 – Trimethylbenzoic acid from Mesitylene
(b) Benzoyl chloride from Benzoic acid

OR

Q-3 Answer the following.

- (i) Write structure for the following and give their IUPAC name. [03]
(a) Acetic acid (b) α – Bromopropionic acid (c) α – Methylbutyric acid
- (ii) Write reaction and reaction mechanism for base promoted halogenation of ketones [04]



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