

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-6) Internal Examination - 2026
US06MIICH05 : FUNDAMENTALS OF ORGANIC CHEMISTRY

Date: 09/03/2026

Time: 10:45 am to 11:45 am

Day: Monday

Total marks : 20

Note: Figures to the right indicate marks of the question.

Q-1 Write the most appropriate answer for the following multiple-choice questions: [06]

- (i) Irreversible precipitation of protein caused by heating is called ?
(a) polymerisation (b) denaturation
(c) electrophoresis (d) Inversion
- (ii) Proteins upon hydrolysis produces ?
(a) hydroxyl acids (b) fatty acids
(c) amino acids (d) alcohols
- (iii) In a proteins α -helix is a common form of ?
(a) primary structure (b) secondary structure
(c) tertiary structure (d) quaternary structure
- (iv) Reduction of naphthalene in presence of Pt/H₂ gives ?
(a) Tetraline (c) Decalin
(c) 1, 4-dihydronaphthalene (d) 1, 2-dihydronaphthalene
- (v) Oxidation of anthracene in presence of K₂Cr₂O₇/H₂O gives ?
(a) Phthalic acid (b) Benzoic acid
(c) Benzophenone (d) Anthraquinone
- (vi) Electrophilic substitution reaction of anthracene takes place at which position ?
(a) 9 - position (b) 3 - position
(c) 9, 10 - position (d) 1,3 - position



Q-2 Write the synthesis for the following :

[07]

- (i) Val-Phe using Benzyl chloroformate.
(ii) Glutamic acid using Phthalimidomalonic ester synthesis.
(iii) Purines using Traube's synthesis.

OR

Q-2 Answer the following :

[07]

- (i) Define Proteins. Give the broad classification of proteins.
(ii) What is prosthetic group ? Why do human beings get suffocation in carbon monoxide atmosphere?
(iii) Discuss isoelectronic point of amino acids.

Q-3 Write the synthesis for the following :

[07]

- (i) 2-methyl-9,10-anthraquinone using phthalic anhydride and toluene.
(ii) Havorth synthesis of Naphthalene.

P.T.O.

(iii) 9-methylantracene from phthalic anhydride and benzene.

OR

Q-3 Explain the following :

[07]

- (i) In naphthalene, all carbon-carbon bonds are not identical.
- (ii) Naphthalene contains two equivalent benzene rings fused together.
- (iii) Naphthalene-2-sulphonic acid is the major product during sulphonation of Naphthalene at higher temperature.



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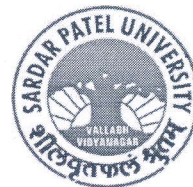
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B.Sc. (Semester 6) Quiz Test - 2026

US06MIICH05 : FUNDAMENTALS OF ORGANIC CHEMISTRY

Date : 09/03/2026

Day: Monday

Time: Maximum 10 Minutes (10:45 am to 11:45 am)

Total marks :05

Q-1 State whether the statement is TRUE or FALSE

[05]

TRUE
or
FALSE

- (i) Geometry of peptide linkage is planar.
- (ii) Heme of hemoglobin is prosthetic group.
- (iii) Globular proteins are water insoluble.
- (iv) Zn/Hg, HCl is a reducing agent.
- (v) Anthracene is less resistant towards oxidation than naphthalene.



===X===X===