

V.P & R.P.T.P SCIENCE COLLEGE

Vallabh Vidyanagar

Internal Test : 2017

B.Sc VI th Semester

Total Marks - 25

Date: 08-03-17

Time : 11-00 to 12-30 p.m Microbiology - US06CMIC03

Q.1 Multiple choice questions.

(03)

1. How many proton pumped out by electron transfer from NADH to O₂ ?
a) 08
b) 10
c) 06
d) 04
2. In plants, glyoxylate cycle takes place in :
a) Mitochondria
b) Chloroplast
c) Golgi apparatus
d) Glyoxysomes
3. Which of the following enzyme brings reversible shift of the double bond From Δ^3 cis to Δ^2 trans in oxidation of unsaturated fatty acids ?
(a) Enoyl CoA Isomerase
(b) Thiolase
(c) Enoyl CoA Hydrase
(d) Acyl CoA Dehydrogenase



Q.2 Short Answer questions. (Attempt any two)

(04)

- 1) How many subunits are there in mitochondrial F₁ of ATP synthase ?
Give its composition.
- 2) List four main activities of HMP pathway.
- 3) Explain α - oxidation of fattyacids.

Q.3 What is oxidative phosphorylation ? Explain the mechanism of oxidative phosphorylation.

(06)

OR

Q.3 Describe the use of biochemical mutants in studying the intermediary metabolism.

(06)

Q.4 Explain glycolysis with regulation and energy generation.

(06)

OR

Q.4 (a) Discuss the amphibolic nature of TCA cycle.
(b) Give outline of the three stages of CO₂ assimilation in photosynthetic Organism.

(06)

Q.5 Discuss β - Oxidation of Saturated fatty acid with its energetic.

(06)

OR

Q.5 (a) Give reaction catalyzed by Acetyl carboxylase.
(b) What is ACP ? Explain its role in fatty acid biosynthesis.

(06)

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