



V.P & R.P.T.P SCIENCE COLLEGE ,Vallabh Vidyanagar

**Internal Test : 2018**

**B.Sc - VI th Semester**

**Date: 14-03-18**

**Time : 11-00 to 12-30 p.m**

**Microbiology - US06CMIC03**

**Total Marks - 25**

**Q.1 Multiple choice questions.**

**(03)**

1. Rotational catalysis was proposed by :
  - a) J. E. Walker
  - b) E. Racker
  - c) A. Lehninger
  - d) Paul Boyer
2. How many ATP are generated on degradation of Glucose in aerobic organism during Glycolysis?
  - a) 08
  - b) 07
  - c) 02
  - d) 10
3. Which of the following enzyme brings reversible shift of the double bond from  $\Delta^3$  cis to  $\Delta^2$  trans in oxidation of unsaturated fatty acids ?
  - (a) Acyl CoA Dehydrogenase
  - (b) Thiolase
  - (c) Enoyl CoA Isomerase
  - (d) Enoyl CoA Hydrase

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

**(04)**

- 1) Explain P/O ratio .
- 2) Give outline of the three stages of CO<sub>2</sub> assimilation in photosynthetic Organism.
- 3) Explain  $\alpha$ - Oxidation of fatty acids.

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

**(06)**

**OR**

**Q.3** Discuss the following.

**(06)**

- (a) ATP synthase
- (b) Relationship between anabolism and catabolism

**Q.4** Discuss the pathway & energetic of TCA cycle.

**(06)**

**OR**

- (a) Discuss the amphibolic nature of TCA cycle.
- (b) List four main activities of HMP pathway.

**(06)**

**Q.5** Discuss  $\beta$  - Oxidation of C16 fatty acid with its energetic.

**(06)**

**OR**

**Q.5** Discuss the biosynthesis of Palmitic acids.

**(06)**

-----XXXXX-----