



**Shree H.N. Shukla College of Science Rajkot**  
**B.Sc. (Sem- V) (CBCS)**  
**[MB-502]: Prokaryotic Metabolism**  
**Unit Test exam Paper-2019**

[Time: 2:00 Hour]

[Total Marks: 50]

**Q-1 Short Answer Question**

[10]

- 1) Which of the following Bacteria have the Entner-doudoroff Pathway
- 2) Value of  $K_m$  is depends upon .....
- 3) What is the first enzyme of T.C.A cycle?
- 4) How many ATPs are produced by oxidation of Palmitate?
- 5) What do Bacteria have in common with Archaea but not with Eukarya?
- 6) Which conditions are favourable for cyclic photophosphorylation?
- 7) What is importance of PPP?
- 8) Define Study state assumption.
- 9) Write a Equation of Line-wiver burck plote.
- 10) What is the limitation of M.M. equitation\_\_\_\_\_?

**Q-2 (a) Write answer any three**

[5 x 2=10]

- 1) Write down the properties of regulatory enzymes?
- 2) Explain Transamination reaction of Amino acid?
- 3) Enlist the Enzymes involved in Regulation of EMP Pathway?
- 4) How many ATP and NADP generated during bacterial photosynthesis
- 5) What is  $K_m$ ?
- 6) Enlist the 5 enzymes of T.C.A cycle?

**Q-3 Write answers any three.**

[5x3=15]

- 1) Explain stickland reaction?
- 2) Explain Glyoxylate cycle?
- 3) Explain covalent modification with example.
- 4) Decarxylation of Amino acid.
- 5) Write a note on an oxygenic photosynthetic reaction in bacteria.
- 6) Write a short note on high energy compound in metabolisam.

**Q-4 Write answers any two.**

[3x5=15]

- 1) Michaelis-menten Equation
- 2) T.C.A Cycle
- 3)  $\beta$ -Oxidation of Palmitic Acid
- 4) Role of Precursror metabolites in Metabolism
- 5) Describe components and redox carriers of ETC.

**BEST OF LUCK**

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