

Enrollment No: _____ Exam Seat No: _____

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Prokaryotic Metabolism

Subject Code :4LS04MBO1

Branch :B.Sc. (Microbiology)

Semester : IV Date :21/11/2015 Time : 2:30 To 5:30 Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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Q-1 Attempt the following questions: (14)

- a) *E. coli* is Gram..... Bacteria.
- b) What is the end product of glycolysis cycle.
- c) What is the full form of ATP.
- d) Write the full form of TCA.
- e) Write one alkaline (basic) amino acid.
- f) What is unsaturated fatty acid?
- g) Generation of glucose from non carbohydrate source is known as?
- h) Methane producing bacteria is known as.....
- i) In which part of cell Electron Transport Chain occurs?
- j) PPP stands for.....
- k) What is catabolism?
- l) What is Biosynthesis?
- m) What is bacteriochlorophyll?
- n) What do you mean by Anaerobic bacteria?

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions

- a Draw the well labeled flow chart of Glycolysis. 7
- b Write in brief about phototrophic bacteria. 7

Q-3 Write short notes on

- a. Citric acid cycle 7
- b. Anaerobic Respiration 7

Q-4 Explain the process of fatty acid oxidation with suitable examples. (14)



Q-5	Attempt all questions	
a.	Explain in brief the catabolism of amino acids.	7
b.	Explain the role of mitochondria in energy generation.	7
Q-6	Write short notes on-	
a.	Pentose Phosphate Pathway	7
b.	Methanogens	7
Q-7	Attempt all questions	
a.	Explain the process of photosynthesis in bacteria	7
b.	What is ketogenesis? Explain in brief.	7
Q-8	Explain the following-	
a.	Gluconeogenesis	7
b.	Atkinson's energy charge	7

