

09 DEC 2020

B.Sc. (New CBCS) Semester – V Examination – December 2020
MICROBIOLOGY

Paper: MIC-CC-504 Bacterial Metabolism

Time: 1:30 Hours

Paper Code: 21489

Total Marks: 42

Instructions: (a) Figures to the right indicate total marks of respective questions.
(b) Draw neat, clean and labeled diagram wherever necessary.

Q.1 (A)	Explain end product inhibition in branched biosynthetic pathway.	14
	OR	
Q.1 (A) (i)	Write a note: Fermentation.	07
Q.1 (A) (ii)	Explain briefly: Multi-substrate reactions.	07
Q.2 (A)	Explain glycolytic pathway with all necessary enzymes. Count the total number of various energy rich molecules produced out of one glucose molecule.	14
	OR	
Q.2 (A) (i)	Discuss the fate of pyruvate.	07
Q.2 (A) (ii)	Explain in brief: ED pathway.	07
Q.3 (A)	Explain various stages of Calvin cycle. Mention its significance.	14
	OR	
Q.3 (A) (i)	Write a note on: Reductive TCA cycle and its significance.	07
Q.3 (A) (ii)	Explain in brief: Physiological groups of phototrophs.	07
Q.4 (A)	Explain assimilation of molecular nitrogen. Explain the role of nitrogenase complex and fate of ammonia.	14
	OR	
Q.4 (A) (i)	Write on: Sulphate assimilation.	07
Q.4 (A) (ii)	Write on: Glyoxylate pathway and its importance.	07

નોંધ:

- પ્રશ્નપત્રનો સમય ૧.૩૦ કલાકનો રહેશે.
- પ્રશ્નપત્રમાં ૪ પ્રશ્નોમાંથી કોઈ પણ ત્રણ પ્રશ્નોના જવાબ આપવાનો રહેશે.
- દરેક પ્રશ્નના ગુણ એકસરખા (૧૪ માર્ક્સના) રહેશે. પ્રશ્નપત્ર કુલ ૪૨ માર્ક્સનું રહેશે.