2021

Microbiology

[HONOURS]

(CBCS)

(B.Sc. Third Semester End Examinations-2021)

PAPER-C5T

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Group-A

Answer any five from the following: **5x2= 10**

1. What is Batch Culture? 2
2. Are Synchronous growth and diauxic growth same? Give reason 1+1
3. Differenciate facultative aerobes and facultative anaerobes. 1+1
4. How in hexakinase different from glucokinase? 1+1
5. What is meant by feed back inhibition? Give one example. 1+1
6. What are uncouplers? Give example. 1+1
7. Distinguish between halophiles and xerophiles. 1+1
8. State the fate of Pyruvate in glycolysis.

Group-B

Answer any four from the following: 4x5 = 20

1. Describe briefly Uniport, Symport and antiport. Differentiate among the three. $2\frac{1}{2}+2\frac{1}{2}$
2. With proper diagram describe methanogens. Name two the methanogens. 5
3. Write down the chemiosmotic hypothesis. Differentiate between an oxygenic and oxygenic photosynthesis. 2+3
4. Write a short note on Nitrogen fixation. 5
5. Write down the regulation of Pentose Phosphate Pathway. Why is it called a atternate to glycolysis? 3+2
6. Schematically state the gluconeogenesis pathway. Write a brief note on glucose tolerance.

Group -C

Answer any one of the following : 10x1 = 10

1. What is glycogenesis? Write and describe the steps in glycogenesis sequentially with pro labelled diagram. 3+7

2. Describe ETC (Electron Transport Chain) with proper flow diagram. Compare mitochondrial ETC to that of Bacterial ETC.
