| Seat | |
|-------------|--|
| Seat No. | |
| 110. | |

Q.1)

B.Sc. (Part - III) (Semester - VI) (CBCS)

Examination, March - 2024

MICROBIOLOGY (Paper-XIV) (26 B)

Microbial Biochemistry

| Sub. Code: 81/05 | |
|------------------|-----------------|
| sday, 27-03-2024 | Total Marks: 40 |

Day and Date: Wednes Time: 02.30 p.m. to 04.30 p.m.

| Instruction: 1) | All questions | are compulsory. |
|-----------------|---------------|-----------------|
|-----------------|---------------|-----------------|

- Figures to the right indicate full marks.

| | | Draw neat labelled d | iagrai | ms wherever necessary. | | |
|------|---------|---|---------|--|-----|--|
| Cho | ose t | he correct alternative an | d rewi | rite the sentence. | [8] | |
| i) | The | The word enzyme was firstly proposed by | | | | |
| | a) | Lewis | b) | Koshland | | |
| | c) | Kuhne | d) | Lederberg | | |
| ii) | | is the protein part of | f an en | zyme. | | |
| | a) | Apoenzyme | b) | Cofactor | | |
| | c) | Co-substrate | d) | Prosthetic group | | |
| iii) | The are | e enzymes which are producalled as | iced in | the cell and function outside the cell | | |
| | a) | Intracellular enzymes | b) | Inducible | | |
| | c) | Extracellular enzymes | (1) | Holoopgymas | | |

..... pathway shows Amphibolic pathway.

- Glyoxylate a)
- b) **TCA**

EMP c)

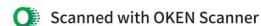
d) Lipid Metabolism

During RNA synthesis Thymine is replaced by in RNA.

- Adenine a)
- b) Guanine
- Cytosine
- d) Uracil

-1-

P.T.O.



| | vii) viii) | a) peptide bond b) phosphodiester bond c) glycosidic bond d) hydrogen bond The primary acceptor of CO₂ is in carbon assimilation. a) ribose-5-phosphate b) ribulose-5-phosphate c) ribulose-1-5-di-phosphate d) ribose-1-5-di-phosphate f) The Z gene in Lac operon is transcribed for | | | | |
|------|---------------|---|------|--|--|--|
| | | β-galactoside permease β-galactoside transacetylase β-galactoside dehydrolase | | | | |
| Q.2) | Atte | empt any two of the following : | 16] | | | |
| | i) | Write in brief about classes of enzymes with their examples. | | | | |
| | ii) | | | | | |
| | iii) | Explain in detail assimilation of carbon. | | | | |
| Q.3) | Writ | ite short notes on : (Any four) | [16] | | | |
| | i) | Active site of enzyme | | | | |
| | ii) | KM | | | | |
| | iii) | Effect of temperature on enzyme activity | | | | |
| | iv) | Structure of mRNA | | | | |
| | v) | Peptidoglycan | | | | |
| | vi) | ED pathway | | | | |
| | | | | | | |