

KNT/KW/16/5120

Bachelor of Science (B.Sc.) Semester-III (C.B.S.) Examination**MICROBIOLOGY****(Chemistry of Organic Constituents & Enzymology)****Paper-I**

Time : Three Hours]

[Maximum Marks : 50

N.B. :- (1) **ALL** questions are compulsory and carry equal marks.

(2) Draw diagrams wherever necessary.

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| 1. (a) | Give the pyranose and furanose structure of glucose. | 2½ |
| (b) | Give the structure of maltose. | 2½ |
| (c) | Give the structure of lactose. | 2½ |
| (d) | Give the structure of sucrose. | 2½ |

OR

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| (e) | Write a note on triglycerides. | 2½ |
| (f) | What are phospholipids ? Give example. | 2½ |
| (g) | Discuss the formation of osazone. | 2½ |
| (h) | Give the structure of cholesterol. | 2½ |
| 2. | Describe in detail the secondary structure of proteins. | 10 |

OR

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| | Discuss the classification of amino acids. | 10 |
| 3. | Describe in detail the different types of enzyme inhibition. | 10 |

OR

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| | Derive Michaelis and Menten equation and explain LB plot. | 10 |
| 4. (a) | Discuss the different types of water soluble vitamins. | 5 |
| (b) | Discuss the structure of tRNA. | 5 |

OR

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| (c) | Discuss the diseases due to deficiency of Vit. B group. | 5 |
| (d) | Discuss the structure of different types of Pyrimidines. | 5 |

5. Solve any **ten** :

1×10

- (i) What are epimers ?
- (ii) What are anomers ?
- (iii) What is a neutral lipid ?
- (iv) What is an imino acid ?
- (v) Name any two proteins with oligomeric form.
- (vi) What is a peptide bond ?
- (vii) What are zymogens ?
- (viii) What is turn over number ?
- (ix) What are coenzymes ?
- (x) What are nucleosides ?
- (xi) What is Z DNA ?
- (xii) Name any two fat soluble Vitamins.