

M.Sc. Semester – I Examination – February 2021
MICROBIOLOGY

Paper: 102 Biochemistry
Time: 1:30 Hours

18 FEB 2021

Paper Code: 23347
Total Marks: 42

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

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| Q.1 | Give detailed account on structures of proteins. | 14 |
| | OR | |
| Q.1 (A) | Write a note on: Classification of amino acids. | 07 |
| Q.1 (B) | Write briefly on: Protein degradation. | 07 |
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| Q.2 | Give a complete account on gluconeogenesis, its regulation and importance. | 14 |
| | OR | |
| Q.2 (A) | Write on: Regulation of EMP pathway. | 07 |
| Q.2 (B) | Calculate the maximum possible ATPs which can be produced from a single glucose molecule. | 07 |
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| Q.3 | Discuss: Biochemistry of insulin and glucagon in blood sugar regulation. | 14 |
| | OR | |
| Q.3 (A) | Write a note on: Effect of ethylene and IAA on plant. | 07 |
| Q.3 (B) | Write a note on: Structure of vitamin B ₁₂ . | 07 |
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| Q.4 | Derive Michaelis-Menten equation for unisubstrate-enzyme catalyzed reaction. | 14 |
| | OR | |
| Q.4 (A) | Write briefly on: Allosteric regulation of enzymes. | 07 |
| Q.4 (B) | Write a note on: Various co-enzymes. | 07 |
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