

SH-V/MCB-501/C-11/19

B.Sc. 5th Semester (Honours) Examination, 2019-20

MICROBIOLOGY

Course ID : 52211

Course Code : SH/MCB/501/C-11

Course Title : Industrial Microbiology

Time: 1 Hour 15 Minutes

Full Marks: 25

*The figures in the right hand side margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer *any five* questions out of eight questions: 1×5=5
- (a) Define industrial microbiology.
 - (b) What do you mean microbial strain?
 - (c) Write name of the enzymes to produce corn steep liquor.
 - (d) What is the importance of fed batch culture?
 - (e) How foaming is controlled in a fermentor?
 - (f) Name a microbial source that is predominantly used for the production of Vitamin B₁₂.
 - (g) Give some examples of application of yeast.
 - (h) What are the merits of spray drying?
2. Answer *any two* questions out of four questions: 5×2=10
- (a) How will you isolate an antibiotic producing bacteria? What is bioreactor? 3+2=5
 - (b) Why cells are disrupted? Write the procedure of cell disruption. 2+3=5
 - (c) Write the sources of microbial proteases and their industrial importance. 2+3=5
 - (d) What are the different process of enzyme immobilization? Why enzymes are immobilized? 3+2=5
3. Answer *any one* question: 10×1=10
- (a) How pH, temperature, dissolved oxygen and aeration can be mentained within a fermentor?
 - (b) Describe the brewing process. Write the importance of ethanol. 7+3=10
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