

U.G. 5th Semester Examination - 2021**Microbiology****[HONOURS]****Discipline Specific Elective (DSE)****Course Code : MB(H)/DSE-02/PR****[PRACTICAL]****(Microbial Biotechnology)**

Full Marks : 20

Time : 2 Hours

*The figures in the right-hand margin indicate marks.*Answer **any two** of the following 10×2=20

1. Describe the principle for the isolation and identification of protease producing bacteria from soil. Why do microbes produce amylase enzymes?
8+2
2. Describe the method for enzyme immobilization in sodium alginate beads. Why are immobilized enzymes more stable?
8+2
3. Why do bacteria produce pigment? Write two examples of microbial pigments, source microorganism, and respective use.
4+6

4. Describe briefly the principle of the technique for immobilizing yeast cells in alginate beads and determine its enzymatic activity. State the advantage of using immobilized yeast cells in fermentation processes for ethanol production.
7+3
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[Turn over]