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M.Tech(Bio Tech) (2018 Batch) (Sem.-1)**MICROBIAL BIOTECHNOLOGY****Subject Code : MTBT-101-18****M.Code : 75762****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTIONS TO CANDIDATES :****1.Attempt any FIVE questions out of EIGHT questions.****2.Each question carries TWELVE marks.**

1. What is the role of microbes in human therapeutics? What are recombinant drugs? How they are developed?
2. What is the role of microbes in waste water treatment and hazardous waste management?
3. Which are the most suitable microbial hosts for gene cloning and why?
4. What are thermophiles? Explain their advantages and various industrial applications.
5. What are various methods of genetic manipulation of micro organisms for strain improvement? Why it is necessary? Explain with suitable examples.
6. Why preservation of microbes is necessary? What are various methods of culture preservation? What are germplasm banks? Give some examples.
7. Which microbes are involved in industrial scale production of antibiotics? Explain in detail isolation and characterization of antibiotics from micro organisms and their production strategy.
8. Explain/Define briefly :
 - i. Biofilms
 - ii. Micro organisms involved in production of vitamin B₁₂ and riboflavin
 - iii. Action of chloramphenicol on bacteria and protozoa
 - iv. Production of amylases

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

