

Dr. Gurupati  
Vigay  
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT  
T2 Examinations- April 2018  
BTDD / M.Tech Final Sem

COURSE CODE: 14M11BT211  
COURSE NAME: Industrial Biotechnology  
COURSE CREDITS: 3

MAX. MARKS: 25

MAX. TIME: 1.5 h

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. What are the drawbacks associated with the mechanical-based cell wall lysis methods? Write about the lytic enzymes which can able to lyse the lysozyme-resistant gram +ve bacteria? (5 M)
2. Discuss about the non-spore forming Firmicutes used in IB? What are the important characteristics of microbes used in IB (5 M)
3. Write about the alternatives to Protein A chromatography used for DSP of Mab's? Write the composition of GFC matrices "Sephacryl HR" and "Sephacryl CL"? (5 M)
4. Discuss about the different methods used for debittering of protein hydrolysates? Mention the economic benefits of using halophiles for PHA's production? (5 M)
5. Write about the important characteristics of extremophile "*Deinococcus Radiodurans*"? Discuss about the "Compatible-solute" and "Salt-in" strategies adopted by halophiles to survive in halophilic conditions? (5 M)

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