

G. H. Kumar

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
T3 Examinations- May 2018
BTDD

COURSE CODE: 14I11BT811

MAX. MARKS:35

COURSE NAME: Bioprocess Plant Design

COURSE CREDITS: 3

MAX. TIME: 2 h

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

1. Categorize the fermentation processes based on the typical application with suitable process examples? (5M)
2. Mention the advantages and disadvantages of different hosts for production of recombinant products (5 M)
3. Write about the different uses of metabolic flux analysis? Summarize the determination of flux control coefficients by indirect methods? (5 M)
4. Write the importance of fluorescence techniques in bioprocess monitoring? Mention the different types of phenomenon those can be studied through fluorescence monitoring?(5M)
5. With a neat flow chart depict the design process for an iterative procedure? Mention the general procedure for reactor designing by a step by step approach? (5 M)
6. Differentiate the proprietary and non-proprietary equipments used in biochemical processes? Mention any three membrane filtration processes along with the approximate size ranges and typical processes? (5 M)
7. Write about the following (2 x 2.5 = 5 M)
 - (a) Parameters of MCA concept
 - (b) BIOVIEW

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