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JAYPEE UNIVERSITY OF INFORMATRION TECHNOLOGY, WAKNAGHAT

T-1 EXAMINATIONS-FEBRUARY 2020

B.Tech (BTDD), VIII<sup>th</sup> Semester

COURSE CODE: 14I11BT831

MAX. MARKS: 15

COURSE NAME: Bioprocess Plant Design

COURSE CREDITS: 3

MAX. TIME: 1h

*Note: All questions are compulsory*

- 1) What are the different aspects need to know before starting any bioprocess plant design for a given product with its market demand? (CO I) (3 M)
- 2) Summarize the different steps utilized in process design? (CO I) (3 M)
- 3) Mention the "Rules of Thumb (Heuristics)" which have to be followed for recovery and purification of any biological product? How you will deal with the presence of "Inclusion bodies" in the biological purification? (CO I & II) (3 M)
- 4) Write down the procedure used for process analysis of given biological production?(CO II) (3 M)
- 5) What is "Process Simulator"? Give any two example of PS utilized in Biochemical/Bioprocess Industries? Mention the different tasks carried out by the process simulators in Bioprocess plant designing? (CO II) (3 M)

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