

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS-2022

B.Tech-6 Semester (BT)

COURSE CODE: Manufacturing Process & Industrial Products

MAX. MARKS: 25

COURSE NAME: 20B1WBT631

COURSE CREDITS: 03

MAX. TIME: 1hr30 min

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

1. What are the isozymes of glutaminase? [2 Marks] (CO1)
2. Which therapeutic enzyme is used to reduce the reverse transcriptase activity of HIV in serum? Explain [2 Marks] (CO1)
3. Name the semisynthetic Cephalosporins derived from (a) 7-amino cephalosporanic acid and (b) 7-amino-3-chloro cephalosporanic acid. [2 Marks] (CO1,2)
4. Justify L-Glutaminase as a therapeutic enzyme. Explain the recovery, purification and assay of L-Glutaminase enzyme. Discuss the factors which may influence the activity of L-Glutaminase. [5 Marks] (CO1)
5. Penicillin acylase is produced by various microorganisms. Name some microbial sources, the strategies involved in the purification of penicillin acylase and briefly explain p-Dimethyl amino benzaldehyde Method used for the assay of Penicillin acylase. [5 Marks] (CO1)
6. How Nattokinase production can be optimized? What are parameters to be considered and how would you assay the purified Nattokinase enzyme. [5Marks] (CO1)
7. (A) What is the advantage of levocetirizine? [1 Mark] (CO1,2)
(B) What is the complication associated with L-Dopa? [1 Mark] (CO1,2)
(C) How biochemical separation of a racemic mixture of ammonium tartarate was done by Pasteur in 1858? [2Marks] (CO1,2)
8. Asparaginase is used in the treatment of leukemia. Explain the mechanism. Briefly, discuss the importance of PEGylation of Asparaginase. [2 Marks] (CO1)