Q.P. Code: 50139

Duration: 3 Hours **Total Marks: 80**

N.B:

1) Attempt **any four** questions
2) Each question carries **twenty** marks

Q1. (a). Explain media sterilization methods, also explain significance of batch sterilization kinetics? **(10)**

(b) Explain carbon catabolite repression. **(10)**

Q.2 (a). What is KLa? Explain various methods for the determination of KLa. **(10)**

(b). Discuss crab tree effect along with its applications. **(10)**

Q.3 (a). Discuss production of penicillin through fermentation. **(10)**

(b). Define the criteria of development of inoculum for plant fermenters? **(10)**

Q.4 (a). Mention all the methods for preservation of industrially important strain **(10)**

(b). How submerged fermentation is different than solid state fermentation? **(10)**

Q.5 (a) What are the different feed strategies in fed batch culture? Give detail account on variable volume fed batch culture. **(10)**

(b). How is citric acid produced? **(10)**

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