

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY (Answer any FOUR)**4 X 25 = 100 Marks**

1.
 - a) Write a note on enzymes. Explain the production of amylase
 - b) Write on immobilized enzyme engineering
2.
 - a) Explain in detail the optimization of fermentation parameters
 - b) Describe the biosynthesis of erythromycin
3.
 - a) Explain the production and applications of monoclonal antibodies
 - b) Write about Hybrid DNA formation
4.
 - a) Plant cell cultures as alternative sources of phytochemicals. Explain with examples
 - b) Explain the media composition of plant cell cultures
5. Write on: 1) VDRL and Pregnancy test 2) Protoplast fusion
 - b) Explain the economic importance of biotech products W.r.t. antibiotics
6. Write short notes on:
 - a) Penicillin
 - b) Estimation of molecular weight of proteins
 - c) Multi step immobilized enzyme systems
 - d) Urokinase
 - e) ELISA

* * * * *

www.FirstRanker.com