

Please check whether you have got the right question paper.

N.B:

- Q.1 a) Define ELISA. 01
 b) Enlist the uses of restriction endonucleases. 01
 c) Define fermentation and enlist the processing steps. 02
 d) Differentiate between batch and continuous fermentation. 02
 e) Write applications of r-DNA technology. 01
 f) Write the uses of transgenic plant technique with example. 02
 e) Draw neat labeled diagram of plasmid (PBR322). 02
 f) Give pharmaceutical application of plant tissue culture. 02
 g) Explain the PCR technique in brief. 02
- Q.2 a) Distinguish between Active and passive immunity. 03
OR
 a) Write a note on Immobilization 'In support'.
 b) Comment on RIA & its application. 04
 c) Give the classification of vaccines. Explain in brief recombinant vaccines. 04
- Q.3 a) Write note on r-DNA technology with steps involved. 04
OR
 a) Write a note on c-DNA library (with diagram).
 b) Add a Short Note on BCG vaccine production. 04
 c) Define Hypersensitivity & explain Type-I hypersensitivity . 03
- Q.4 a) Draw fermentor design and enlist the factors affecting fermentation. 04
OR
 a) Draw neat labeled diagram of anti body & explain any two factors affecting pathogenicity.
 b) Comment of monoclonal antibody production in detail (with diagram). 04
 c) Explain production of diphtheria toxoid in brief. 03
- Q.5 a) Write short Note on biosensors. Explain enzyme immobilization with its advantages. 04
OR
 a) Explain the DNA sequencing technique. With one example.
 b) What is stem cell culture. Give its application. 03
 c) What are subunit vaccines. Explain QC aspects of vaccines. 04
- Q.6 a) Define Gel electrophoresis & enlist the contents of process. Explain Northern blotting technique. 04
OR
 a) What are transgenic animal. Explain one example.
 b) Explain in detail clonal selection theory. 04
 c) What is YAC. 03