



- 3 What is hybridoma technology ? Briefly explain the strategies used for the production of monoclonal antibody. Differentiate between monoclonal and polyclonal antibody. 10
4. Differentiate between :
- (a) Normal cells and transformed cells. 5
  - (b) Monolayer culture and suspension culture. 5
- 5 (a) Biology and characterization of the cultured cells. 5
- (b) Mass transfer in mammalian cell culture. 5
6. (a) Describe about the various application and scope of tissue engineering. 5
- (b) Briefly describe the equipments required for animal cell culture. 5
- 7 (a) Micro carrier attached growth. 5
- (b) Organ culture technology 5
8. Write short notes on any **two** of the following : 5×2
- (a) Culture media and growth conditions
  - (b) Cell culture in hollow fiber reactor
  - (c) Cell transformation
  - (d) Embryonic stem cells and their applications.

