

Q-2 Attempt ANY SEVEN from the following: (14)

1. Enlist the essential equipments required for animal cell culture laboratory.
2. Write about different types of balanced salt solutions.
3. Which component of media helps to maintain the pH? How?
4. What are the major differences between monolayer culture and suspension culture?
5. What is passaging? Enlist the criteria for passaging.
6. What is Multicellular tumor spheroid culture (MCTS)?
7. Enlist the cell viability and cytotoxicity assays.
8. Enlist the applications of monoclonal antibody.
9. What is tissue engineering?

Q-3 (a) What is defined media? Explain the constituents of animal tissue culture media. (06)
(b) Discuss role of serum in animal cell culture. (06)

OR

(b) Write an explanatory note on sterilization techniques. (06)

Q-4 (a) Explain in brief the establishment of primary culture. (06)
(b) Give a detailed account on cell line. (06)

OR

(b) Describe various methods of scale up for monolayer cell culture. (06)

Q-5 (a) Enlist cell viability and cytotoxicity assays and explain cell viability assays based on membrane integrity. (06)
(b) Enlist the route and sources of contaminations and give brief account on microbial contaminants. (06)

OR

(b) Describe the process of cryopreservation technique. (06)

Q-6 (a) What is stem cell? Write the types of stem cells on the base of potentiality with example. (06)
(b) Discuss hybridoma technology for monoclonal antibody production. (06)

OR

(b) Write an explanatory note on vaccine production with the help of animal cell culture. (06)
