Roll No. | | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(BT) (2012 to 2017) (Sem.–5)

ANIMAL TISSUE CULTURE

Subject Code : BTBT-504

M.Code : 70505

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

1. Answer briefly :

a) What are applications of animal cell culture in area of pharmacology?

b) What is terminal Differentiation?

c) Explain cadherins.

d) What is sub-culturing?

e) What is primary culture?

f) What is Hanks Balanced salt solution?

g) Explain Serum Free Media.

h) What is a Transgenic animal?

i) Explain the need for cryopreservation.

j) How will you detect Fungal contamination in cell culture?

SECTION-B

2. Explain the enzymatic and Mechanical disaggregation if tissues during establishment of primary culture.

3. Explain the criteria of choosing a cell line.

4. What is the role of pH, carbon dioxide and buffer as a physiochemical parameter for cell line growth?

5. Explain the application and use of transgenic animals.

6. What are the factors which are affecting in the scale up of anima cell in a bioreactor?

SECTION-C

7. Explain in detail the technique for the production of transgenic animals using the embryonic stem (ES) method for the development of transgenic mice. Explain its advantages.

8. What is serum free media and what are the bottle necks of using serum in the media and explain the advantages/disadvantages of using serum free media?

9. Describe the different methods for the detection of mycoplasma contamination and also write about its eradication.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.