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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (BT) (2012 to 2017) (Sem.-5)
ANIMAL CELL CULTURE & BIOTECHNOLOGY
Subject Code : BTBT-504
M.Code : 70505

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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 have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A**Answer briefly :**

1. What is the application of cell culture in area of Toxicology?
2. What are the properties of Suspension cultures?
3. Explain the warm Trypsinisation method for primary culture process.
4. What is a Mycoplasma?
5. What is gene therapy?
6. Where is a roller bottle used for?
7. Explain sub-culturing procedure.
8. How would you eradicate fungal contamination in animal cell culture?
9. Where is collagenase used for?
10. Explain layout of a tissue or cell culture laboratory.

SECTION-B

11. What are the different types of reactor systems required for large scale animal cell production?
12. Explain the Embryonic stem cell method for the creation of Transgenics and its disadvantages.
13. Explain the different methods required to detect mycoplasma contamination in animal cell culture.
14. Explain what is serum free media? Also write about the advantages and disadvantages of using serum free media.
15. Write about the biohazards and risk assessment in animal cell culture laboratories.

SECTION-C

16. What are cell lines? How are they developed? How they are different from primary cells? Give the potential advantages of cell lines over primary cells.
17. Describe how gene therapy has been used for treating human genetic disorders citing different examples?
18. What is a complete media? Describe the necessary components which are present in a complete media.

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.