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

Total No. of Questions : 18

B.Tech. (BT) (2018 Batch) (Sem.–3)

FOUNDATIONS OF BIOTECHNOLOGY

Subject Code : BTBT302-18

M.Code : 76946

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 a recombinant DNA vaccine? Give two examples.
2. What is meant by the term bio-pesticide?
3. What is gene therapy?
4. What is biological nitrogen fixation? Highlight its importance.
5. Highlight the differences between classical and modern biotechnology.
6. What do you mean by an alcoholic beverage? How many types of beverages are available in the market?
7. What is protein engineering? Cite a suitable example.
8. Define a biopharmaceutical.
9. Which technique is used for the separation and isolation of sub-cellular organelles and why?
10. What are the main enzymes used in bakery industry? Briefly highlight their roles.

SECTION-B

11. Briefly discuss Thin layer chromatography and its applications in biotechnology.

12. Define Biosafety & its requirement in laboratory.

13. Discuss the different biosafety levels while handling microorganisms.

14. Discuss applications of animal tissue culture.

15. Explain different types of bioremediation processes with suitable examples.

SECTION-C

16. Discuss the importance of algae with reference to use as food, feed and fuel.

17. Discuss the role of bacteria and fungi in bioremediation.

18. Microbes play a significant role in symbiotic nitrogen fixation. Justify the statement.

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.