

Q.P. Code : 780501

(2½ Hours)

[Total Marks : 75

- N.B. : (1) Attempt **all** questions
(2) **All** questions carry **equal** marks
(3) Draw **diagrams** wherever **necessary**

1. Do as directed. (Any **fifteen**)

15

- (1) Explain the term biotechnology.
- (2) Name the causative agent of Diphtheria
- (3) What are molecular scissors?
- (4) Name one international organisation promoting biotechnology research and development.
- (5) What does DST stand for ?
- (6) What is a GMO?
- (7) Give the chemical name of vinegar.
- (8) State the use of 'golden rice'.
- (9) Name a bacterium widely used for transfer of transgene to plants.
- (10) State the significance of GM papaya
- (11) What is 'trade secret'?
- (12) Name a company involved in production of transgenic seeds.
- (13) Name virus used for transfer of transgene to plants.
- (14) What is blue biotechnology
- (15) Give one example of a yeast used in Fermentation.
- (16) Explain the term food biotechnology.
- (17) Give full form of WHO
- (18) Give an example of traditional fermented food
- (19) Name any one enzyme used in food industry.
- (20) _____ is an example of pentose sugar
 - (a) glucose
 - (b) fructose
 - (c) xylose
 - (d) lactose

TURN OVER

2. (a) Describe the significance of Biotechnology in health care and agricultural sectors. 8
- (b) Discuss any one success story in Biotechnology studied by you. 7
- OR**
- (c) Discuss any two branches of Biotechnology studied by you. 8
- (d) Elaborate on differences between traditional and modern biotechnology. 7
3. (a) Give a detailed account of molecular pharming. 8
- (b) Elaborate on edible vaccines. 7
- OR**
- (c) Discuss: GM technology with respect to Indian context. 8
- (d) Elaborate on role of Biotechnology for 'crop improvement'. 7
4. (a) Discuss briefly the steps involved in unit operation in food processing. 8
- (b) Schematically describe production of citric acid, using fermentation technology. 7
- OR**
- (c) Elaborate on the role of biotechnology in enhancing the quality of food. 8
- (d) Schematically describe production of any one enzyme studied by you, using fermentation technology. 7
5. Write short notes on any **three** of the following :- 15
- (a) History of Biotechnology
 - (b) BT cotton
 - (c) Patents and copy rights
 - (d) Biotech Policy Initiatives
 - (e) Food Deterioration and its control
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