

1079
B. Engg. (Bio-Technology)
7th Semester
BIO-712: Food Biotechnology

Time allowed: 3 Hours

Max. Marks: 50

NOTE:

Attempt five questions in all, including Q. No. 1 which is compulsory and selecting atleast two questions from each Unit-I & II.

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I. Answer the following briefly:

- a) Write briefly on morphology of fungi important in food.
- b) What are the different bacterial and fungal genera used for SCP production?
- c) What is water activity?
- d) What is HACCP system?
- e) What is the importance of smoking, method in food? (5×2)

UNIT-I

II. Describe the chemical methods for control and destruction of microorganisms. (10)

III. Write briefly on following genera (Do *any Five*): -

- | | | |
|-----------------|-------------------|-------------------|
| (a) Pseudomonas | (b) Campylobacter | (c) Acinetobacter |
| (d) Penicillium | (e) Aspergillus | (f) Saccharomyces |
- (10)

IV. Write contribution of following scientists:

- | | |
|----------------------|----------------------------|
| (i) Louis Pasteur | (ii) Antony Van Leewenhoek |
| (iii) Francesco Redi | (iv) Edward Jenner. |

Write in short about spontaneous generation along with Theodor Schwann's experiment disapproving it and Koch's Postulate. (10)

UNIT-II

V. What are food borne diseases? Distinguish between invasive and non-invasive infectious microorganisms. Describe the important characteristics of the causative agents associated with food borne intoxications. (10)

VI. (a) Write the name of organism and production process involved in soy sauce.
(b) What are the advantages and disadvantages of different microorganisms used in SCP production? (5+5)

VII. (a) What are the applications of various microbial and molecular techniques in food technology?
(b) Give an overview of food intoxications by mycotoxins. (5+5)

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