Progressive Education Society's

Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16, NEP 2020 (Autonomous)

End Semester Examination: OCT / NOV 2024

***Total No. of Questions**: 4/18* ***Total No. of Pages**: 2*

SECOND YEAR (B.Sc.)
MIC23103: Food Microbiology
(Semester III)

Program: BScGen03 **Credits:** 2
Program Specific: Microbiology **Time:** 2 Hours
Course Type: Disciplinary Major Mandatory **Max. Marks:** 30
Paper: III **SET:** A

Instructions to the candidate:

1) *All questions are compulsory.*
2) *Figures to the right indicate full marks.*
3) *Draw a well labelled diagram wherever necessary.*

SECTION: A

Q1) Answer the following **[5 X 1= 5]**

1. Define prebiotics.
2. Explain the term fermented food.
3. FDA stands for _____.
4. Mention any two types of food additives used as preservatives.
5. Explain the term perishable food.

SECTION: B

Q2) Answer the following (Attempt any 5/7) **[5 X 2 =10]**

1. Interpret the factors affecting heat resistance of microbes.
2. Cite the toxins released by *A. flavus* and the symptoms associated with the infection.
3. How does the nutrient composition of food impact the growth of microorganisms?
4. State the optimal pH ranges for the growth of food spoilage organisms.
5. Give four examples of probiotic strains.
6. Enlist the sources of food spoilage microorganisms.
7. Define TDT, TDP, z value and f value.

SECTION: C

Q3) Answer the following (Attempt any 2/4) **[2 X 5 = 10]**

1. Compare and contrast between food poisoning and food infection.
2. Relate: Temperature and growth of microorganisms.
3. Discuss the techniques used in preservation of food by low temperature.
4. Describe any two intrinsic factors affecting microbial growth in food.

SECTION: D

Q4) Answer the following (Attempt any 1/2) **[1 X 5 = 5]**

1. Describe in detail the various types of microbial spoilage of canned foods.
2. Articulate the potential benefits of probiotics.

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