



Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
(Autonomous)
End Semester Examination: MAR / APR 2025
Faculty: Science and Technology

Program: BScGen03
Program (Specific): B.Sc. Microbiology
Class: T. Y. BSc.
Name of the Course: Food Microbiology
Course Code: 24-MB-366
Paper: VI

Semester: VI

SET: A
Course Type:
Max.Marks: 35

Time: 2Hr

Instructions to the candidate:

- 1) *There are 4 sections in the question paper. Write each section on separate page.*
- 2) *All Sections are compulsory.*
- 3) *Figures to the right indicate full marks.*
- 4) *Draw a well labelled diagram wherever necessary.*

SECTION A

Q1) Answer the following

5 Marks

- a) Osmophilic organisms like yeasts grow best in
 - i) Low concentrations of sugar
 - ii) Low concentrations of salt
 - b) Browning of sugar syrups results in the production of
 - i) Phenols
 - ii) Alcohol
 - c) Propionic acid is found naturally in
 - i) butter
 - ii) malt extract
 - d) Define water activity.
 - e) Name the instruments used for size determination.
- (b) High concentrations of sugar
 - (d) High concentrations of salt
 - iii) Furfural
 - iv) Ketones
 - iii) milk
 - iv) swiss cheese

Q2) Answer the following (Attempt any FOUR)

4 Marks

- a) Delineate the symptoms of food infection caused by *Salmonella typhimurium*.
- b) Discuss color as organoleptic property of food.
- c) Cite two examples of fungi responsible for spoilage of meat.
- d) Relate antibiotics and food preservation.
- e) Describe pH as intrinsic factor.
- f) Explain the role of FDA.

SECTION B

Q3) Answer the following (Attempt any FOUR)

8 Marks

- a) Justify that: wholeness is important in deciding market value of food.
- b) Differentiate between Radappertization, radurization and radicidation.
- c) Correlate the production of mycotoxins with food poisoning.
- d) Enlist microbes present in seafood.
- e) Compare and contrast between bio-preservation and chemical preservation.
- f) Delineate steps involved in solar drying of food.

SECTION C

Q4) Answer the following (Attempt any FOUR)

8 Marks

- a) Discuss the applications of prebiotics.
- b) Elaborate on CA storage of food.
- c) Describe the sources of contamination of canned foods.
- d) Differentiate between preservation of food by low temperature and high temperature.
- e) Describe the pretreatment of food for irradiation.
- f) Elaborate on food additives used to enhance flavor and taste of food.

SECTION D

Q5) Answer the following (Attempt any TWO)

10 Marks

- a) Summarize the contamination and spoilage of eggs and poultry.
- b) Write a note on consistency of food.
- c) Describe Botulism.
- d) Discuss the role of nutrients in spoilage of food.