



V. M. SALGAOCAR INSTITUTE
of
INTERNATIONAL HOSPITALITY EDUCATION

B.Sc. International Hospitality Management

Type: Semester End Assessment (SEA)

Date: 05/10/2023

Batch and Term: 2023-26 and Term I Total Marks: 25

Time Duration: 02 Hours

Course Name: Introductory Course in Food Microbiology

Course Code: IHCH124

Instructor: Ms. Alyce C. Rodrigues

This paper contains 03 pages in addition to the cover page.

Full Name of the Student: _____

Permanent Registration Number: _____ Class: _____

Marks Obtained: _____ Faculty Signature: _____ Invigilator Signature: _____

Main Answer sheet	Number of Supplements	Total number of Answer sheets
01		

- Carefully read each question at the outset of the paper. All queries must be addressed to the faculty within the first 10 minutes of the examination.
- Students are expected to maintain complete silence in the examination hall and should not interact or communicate with their peers.
- Students will carry only their essential stationery like pens, pencils, ruler and simple calculators into the examination hall.
- Bags, eatables, drinks, etc. will not be allowed inside the hall with the exception of a bottle of water.
- Cell phones, electronic data banks, scientific calculators and smart/beeping watches are prohibited in the examination hall.
- Students will answer the examination with only blue/ black ball point pens unless informed differently by faculty. Avoid usage of green or red ink pens on the answer sheet.
- Dictionaries will not be allowed into examination hall unless informed differently by faculty.



Q.1. Fill in the blanks with the most appropriate answer.

(0.5 marks each = 5 Marks)

1. _____ is a method of exposing food to ionizing radiation to extend its shelf life.
(Blanching, Cold sterilization, Pasteurization, Chilling)
2. _____ is an extrinsic factor in determining food spoilage.
(pH, Temperature, Nutrient content, Moisture content)
3. _____ causes stormy Fermentation spoilage of milk.
(*Clostridium perfringens*, *Clostridium thermosaccharolyticum*, *Escherichia coli*, *Micrococcus roseus*)
4. _____ is the antimicrobial constituent in fresh milk.
(Benzoic acid, Allicin, Lysozyme, Anti-coliform factor)
5. _____ is an example of a facultative anaerobe.
(*Clostridium thermosaccharolyticum*, *Salmonella enteritidis* , *Escherichia coli*; *Proteus vulgaris*)
6. _____ causes surface taint in butter.
(*Pseudomonas putrefaciens*, *Botrytis cinerea*, *Aspergillus oryzae*, *Rhizopus soti*)
7. Botulism is associated with _____.
(canned food products, meat, poultry, shellfish)
8. Salmonellosis is caused by _____.
(*Clostridium thermosaccharolyticum*, *Salmonella enteritidis* , *Escherichia coli*; *Proteus vulgaris*)
9. _____ is a long rod twisted into spirals shaped bacteria.
(bacillus, cocci, vibrio, spirilla)
10. _____ is a technique in which Foods are immersed in hot boiling water for a few minutes prior to processing.
(Blanching, Irradiation, Pasteurization, Chilling)



Q.2. Match the following:

(0.5 mark each = 02 Marks)

Column A	Column B
1. Rum	i. Molasses
2. Black masses of spore on onions.	ii. Mold <i>Penicillium</i>
3. Brown rot on apples	iii. <i>Aspergillus niger</i>
4. Whiskey	iv. Corn or rye
	v. Juices or mashes of fruits
	vi. Mold <i>Monilia</i>

Q.3. Answer any 10 of the following questions:

(01 Mark each =10 Marks)

- 1) Define Food fermentation.
- 2) List 2 characteristics of starter culture.
- 3) Describe animals/ animal based product as sources of contamination.
- 4) What are prebiotics? Cite 1 examples.
- 5) Bacterial cells are greatly affected by the concentration of solute in the medium, justify.
- 6) Give 1 point of difference between class 1 and class 2 preservatives and cite one example of each.
- 7) List out 2 Objectives of food processing.
- 8) Explain Freeze drying.
- 9) List the types of Pasteurization methods.
- 10) Discuss Staphylococcus Food Intoxication.
- 11) List the foods associated with causing traveller diarrhoea.

Q. 4. Answer any 1 of the following questions:

(02 Marks)

1. Describe the kinds of the microbe in **AIR**, factors affecting the number of microbes and how to avoid or control the such contamination.
2. Describe the kinds of the microbe in **SOIL**, list out 2 microbes commonly present in soil and how to avoid or control such contamination



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Q.5. Answer any 2 of the following questions.

(06 Marks)

1. Diagrammatically explain the microbial growth curve.
2. Discuss the various methods of preservation. (using a graphic organizer).
3. Give 3 points of difference between food infection and food poisoning.