

SEAT No. _____

No. of Printed Pages : 2

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SARDAR PATEL UNIVERSITY

M.Sc. FOURTH SEMESTER EXAMINATION

DATE: 17-04-2018

PS04EMIC09: FOOD & DAIRY MICROBIOLOGY

TIME: 10.00 TO 1.00 P.M

MAX MARKS: 70

Q.1 Select most appropriate answer from the given choices.

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1. Low-heat-processed uncured meats, such as roasts, are given heat treatment at an internal temperature of
 - a) 120 to 140°F
 - b) 140 to 160°F
 - c) 160 to 180°F
 - d) 200 to 220°F
2. Monosodium glutamate (MSG; enhances meat flavor) is produced by
 - a) *Corynebacterium glutamicum*
 - b) *Lactobacillus acidophilus*
 - c) *Lactococcus lactis*
 - d) *Bacillus subtilis*
3. Which of the following acid has bacteriostatic effect at 0.2% concentration?
 - a) Acetic acid
 - b) Lactic acid
 - c) Propionic acid
 - d) none of the above
4. _____ relates to addition of lactic acid bacteria to diet in order to provide health benefits.
 - a) Adjuvets
 - b) Antibiotics
 - c) Prebiotics
 - d) Probiotics
5. What is true about botulin?
 - a) Blocks signal transfer
 - b) Causing paralysis of involuntary muscle
 - c) Cause Hemolysis
 - d) Both a) and b)
6. Shiga toxin is made up of _____.
 - a) One A subunit, Five B Subunit
 - b) Two A subunit, Four B Subunit
 - c) Five A Subunit, One B Subunit
 - d) Two A subunit, Two B Subunit
7. Which of the following transducer can be used in the biosensors?
 - a) Calorimetric devices
 - b) Electrochemical devices
 - c) Optical devices
 - d) All of the above
8. MPAK software developed for design of packaging moisture sensitive foods is used by which of the following institutes?
 - a) NAFARI
 - b) NABI
 - c) CFTRI
 - d) None of the above

Q.2 Answer any seven short questions.

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- a. Write in brief on acid curd cheese.
- b. Define radurization.
- c. Write a note on EHEC.
- d. Describe in brief: Food borne pathogens
- e. Differentiate between Intoxication and Toxicoinfection.
- f. Golden rice helps to treat the Vitamin A deficiency – related diseases. Explain.
- g. Write any one sanitization used in method in food plant.
- h. Write a note on spoilage of raw meat.
- i. Explain significance of relative humidity in food.

C.P.T.O.)

- Q.3 A. Describe importance of bacteria, yeast and moulds in food microbiology. 06
B. Give scope of food microbiology in detail. 06
OR
B. Explain spoilage of milk and milk products in detail. 06
- Q.4 A. Explain in detail food born infection by Vibrio. 06
B. Describe food infection by Salmonella in detail. 06
OR
B. Describe in detail about adult botulism. 06
- Q.5 A. Write a detail note on production of sake with its biochemistry. 06
B. Explain cheddar cheese production and its biochemistry in detail. 06
OR
B. Describe application of microbial enzymes in food industries. 06
- Q.6 A. Write a note on Biosensors for food. 06
B. Write a note on HACCP. 06
OR
B. Write a note on food laws. 06

