

29/A-15

SEAT NO. _____

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SARDAR PATEL UNIVERSITY
B. Sc. Semester- IV
April 2019
MICROBIOLOGY
US04CMIC02 - Applied Microbiology

Date: 10/04/2019, Wednesday

Time: 10:00am to 01:00pm

Marks: 70

Q-1 Select the Right answer

[10]

1. In ultra pasteurization, milk is heated at 300°F temperature for ____
 - a. 1 to 2 seconds
 - b. 1 to 2 minutes
 - c. 1 to 2 hour
 - d. None of the above
2. _____ is a disease causing inflammation of udder of animals.
 - a. Mastitis
 - b. Tuberculosis
 - c. Scrapie
 - d. None of the above
3. The protein food are degraded by proteolytic microorganism, the process is called__
 - a. Rancidity
 - b. Putrifaction
 - c. Fermentation
 - d. None of the above
4. ____ is the most important anaerobic organism to be eliminated from the canned food.
 - a. *E.coli*
 - b. *E. aerogens*
 - c. *B. Subtilis*
 - d. *Clostridium botulinum*
5. The pH of fruits restricts ____ growth
 - a. Bacteria
 - b. Fungi
 - c. Both (a) and (b)
 - d. None of the above
6. Which of the following substance is added for disinfection of water?
 - a. Iodine
 - b. Calcium
 - c. Chlorine
 - d. Magnesium
7. _____ is detected by IMViC test.
 - a. *E.coli*
 - b. *Enterobacter aerogens*
 - c. Both (a) and (b)
 - d. None of the above
8. The filtering medium if trickling filter is coated with microbial flora, known as ____
 - a. Zoological film
 - b. Zooglocal film
 - c. Geological film
 - d. None of the above
9. Which is example of negative interaction?
 - a. Mutualism
 - b. Commensalism
 - c. Antagonism
 - d. Neutralism
10. The key role is played in the transformation of rock to soil by ____
 - a. *Cynobacteria*
 - b. *Nocardia*
 - c. Rhizobia
 - d. None of the above

(1)

(P.T.O)

Q-2 Answer the following in brief (Any Ten)

[20]

- 1) Define: Pasteurization
- 2) Classify milk on the basis of decolourization in MBRT test.
- 3) What is concentrated milk?
- 4) Describe: Aseptic handling of food.
- 5) Briefly explain about microbial flora found in shellfish.
- 6) Define: Radiation preservation.
- 7) What are the factors affecting sedimentation of water?
- 8) Write the classes of natural water.
- 9) Define: Potable water.
- 10) What is Rhizosphere?
- 11) Explain CO₂ fixation by bacteria with its reaction.
- 12) What is nitrification?

- Q-3** A Describe the sources of microorganism in milk and the precautions to minimize their entry into milk. [06]
B Write SPC method for microbial examination of milk. [04]

OR

- A Write a short note on Cheese. [05]
B Explain in detail phosphatase test [05]

- Q-4** Enlist the methods used for food preservation and explain High temperature and dehydration in detail. [10]

OR

- A Write a note on microbial spoilage of food. [06]
B Explain microscopic technique for the microbial examination of food. [04]

- Q-5** Define: Coliform. Explain how the presence of coliform can be detected in water. [10]

OR

- A Explain: Trickling filter. [05]
B Explain: Activated sludge process. [05]

- Q-6** Describe in detail microbial interaction in soil. [10]

OR

- A Explain: Sulfur cycle. [07]
B What is ammonification? Explain its reaction. [03]

*****X*****