



KERALA AGRICULTURAL UNIVERSITY
B. Tech. (Food. Engg.) 2017 Admission
III Semester Final Examination-January 2019

Fdqu.2105

Food Microbiology (1+1)

Marks: 50
Time: 2 hours

I Fill in the blanks: (10x1=10)

- 1 In food preservation terms, keeping out micro organisms is referred as _____
- 2 Psychrotrophs are the microorganisms which can grow and survive at _____ temperature.
- 3 The coliforms are indicator organisms for _____ conditions in the processing of food.
- 4 The food pathogen Clostridium botulinum produces neurotoxin known as _____
- 5 The bacterial soft rot in carrot is caused by bacteria _____

State True or False

- 6 Thermophiles are the bacteria which can't grow at pasteurization temperature.
- 7 The spoilage caused by proteolysis of foods under anaerobic conditions is known as putrefaction.
- 8 In flat sour defect the ends of the cans of the food remain flat during souring.
- 9 Nicolas Cage preserved the food in can and has been called the '**Father of canning**'
- 10 In water analysis MPN stands for Most Possible Numbers.

II Write Short notes on ANY FIVE of the following (5x2=10)

- 1 Microbial spoilage of Food
- 2 Campylobacter jejuni
- 3 Importance of food plant sanitation
- 4 Curing of meat
- 5 Chalky bread
- 6 Botulism
- 7 Thermophiles

III Answer ANY FIVE of the following (5x4=20)

- 1 List out intrinsic factors affecting growth of micro organisms in the food. Explain any two.
- 2 Explain the general types of spoilage of meat caused by bacteria under aerobic conditions.
- 3 Principles of Food preservation. Brief on hurdle technology.
- 4 Write on commonly occurring types of spoilages of fruits and vegetables with names of causative organisms.

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- 5 What do you understand by microbial standards and microbial guidelines? Write the microbiological specifications for ready to serve fruit juices.
- 6 Write on importance of micro organisms in food. List the methods of food preservation.
- 7 What is Food borne disease? Brief on how food borne diseases are classified with examples.

IV Answer ANY ONE of the following (1x10=10)

- 1 Explain the causes of spoilage and types of biological spoilages in canned foods in detail.
- 2 Define Single Cell protein (SCP) with examples. Write on production method of SCP. Mention advantages and disadvantages of SCP.
