



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg.) 2018 Admission
III Semester Final Examination-December 2019

Fdqu.2105

Food Microbiology (1+1)

Marks: 50
Time: 2 hours

I Fill in the blanks

(10x1=10)

1. _____ invades the epidermis of banana to initiate anthracnose.
2. *Rhizopus stolonifer* causes _____ disease in vegetables.
3. Heat stable enzymes produced by psychrotrophic organisms are _____.
4. *Penicillium digitatum* causes _____ disease in citrus fruits.
5. *Leuconostoc mesenteroides* and *Lactobacillus plantarum* are the two most desirable bacteria in _____ production.

State True or False

6. *Saccharomyces cerevisiae* is responsible for fermentation of wine.
7. As the time taken for reduction of methylene blue dye increases, the quality of milk decreases.
8. Nisin is the bacteriocin produced by *Lactococcus lactis*.
9. Louis Pasteur is known as father of canning.
10. GRAS means Gross Recognition of Safety.

II Write Short notes on any FIVE of the following

(5x2=10)

1. What are the criteria that should be met for indicators of food safety?
2. Elucidate the significance of Coliforms in food.
3. *Clostridium perfringens* food poisoning.
4. What is Thermal death time and D value?
5. Write a short note on Asepsis.
6. Name the kinds of ionizing radiation used for preservation.
7. What is putrefaction?

III Answer any FIVE of the following.

(5x4=20)

1. Describe about the various sterilizing agents used in food processing plants.
2. Classification of Antimicrobial preservatives added to foods.
3. Write about different methods of drying.
4. Write short note on Microwave processing.
5. Discuss about the four basic methods for determining the microbial number.
6. Microbial spoilage of fruits and vegetables.
7. Factors affecting kind and rate of spoilage in fish.

IV Write an essay on any ONE of the following

(1x10=10)

1. Describe about the sources of microorganisms in food.
2. Explain HACCP in detail.
