

CARMEL COLLEGE OF ARTS, SCIENCE AND COMMERCE, NUVEM – GOA

POST GRADUATE DEGREE STUDIES (AFFILIATED TO GOA UNIVERSITY)

M.Sc. (I) Food Technology (Semester I) Semester End Examination JANUARY 2020

FTC 102 FOOD MICROBIOLOGY AND FOOD SAFETY STANDARDS

Max. Marks: 45 marks

Duration: 2 hours

Date: 13/01/2020

INSTRUCTIONS:

- 1. Section I** is compulsory
- Answer **any 3** questions from **Section II**
- Figures on the right indicate maximum marks assigned to the question

SECTION I

Q 1. Write short notes on each of the following:

6 marks

- a. Fungicide and fungistasis
- b. Koji
- c. Pour Plate Method
- d. Synbiotics
- e. Dye reduction test
- f. Rancidity

Q 2. Comment on each of the following:

9 marks

- a. Sterilization of glassware and laboratory equipment using dry heat.
- b. Classification of microorganisms based on nutrient requirements.
- c. The association of pathogenic *E. coli* with food.

SECTION II

Q 3. Explain in brief the principle, working and food industry-based applications of the following:

10 marks

- a. ELISA
- b. Ultracentrifugation

P.T.O.

Q 4. Explain in brief and give two applications of the following:

10 marks

- a. Photobioreactor
- b. Stirred tank bioreactor

Q 5. Media are classified into different types based on their functionality or purpose. Explain.

10 marks

Q 6. Explain in brief BIS, ISO and Codex Alimentarius in relation to the food industry.

10 marks
