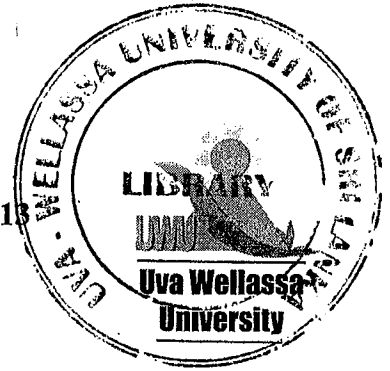


Uva Wellassa University, Sri Lanka

End Semester Examination – September/October 2018

SCT 316-1 Food Microbiology



Time: One (01) hour

---

Number of Questions: Five (05)

Answer only **Three (03)** questions.

---

- 01.
- a. What is the importance of studying food microbiology? (40 marks)
  - b. Give five examples for food borne pathogens. (20 marks)
  - c. What are the two types of bacterial toxins? Explain how bacterial toxins cause illnesses in human body. (40 marks)
- 02.
- a. Define microbial growth. (10 marks)
  - b. What are the four phases in a bacterial growth curve? (30 marks)
  - c. Draw and label a typical bacterial growth curve. Write a short description of each of the four phases. (40 marks)
  - d. Explain how microbial growth is measured? (20 marks)
03. Write short notes on any four (04) of the following topics,
- a. Factors affecting microbial growth in food
  - b. Biofilms in food industry
  - c. Barriers of hurdle concept
  - d. Procedures for ensuring food quality
  - e. Importance of heating/cooling duration in food processing (25×4 marks)

- 04.
- a. Describe how the pasteurisation of milk increases its shelf life. (20 marks)
  - b. Outline how freezing extends the storage life of ice cream. (20 marks)
  - c. Explain ways in which the safe storage life of bread can be extended. (20 marks)
  - d. Explain two (2) preservation methods that use elevated temperatures to extend the shelf life of food. What are the types of food that can be preserved using the two methods? (40 marks)

- 05.
- a. What is food spoilage? (10 marks)
  - b. What are the main causes of microbial food spoilage? (20 marks)
  - c. Name main three (3) groups of food classified based on their ease of spoilage giving two (02) examples each. (30 marks)
  - d. What are the ways of meat spoilage? Name three (3) types of microorganisms which cause meat spoilage. (40 marks)