



2.

a. Define 'food spoilage'.

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(02 marks)

b. What is putrefaction?

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(02 marks)

c. List five (05) modern methods of food spoilage detection.

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(2.5 marks)

d. List three (03) most common food spoilage bacteria that could be found with in refrigerated foods.

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(03 marks)



3.

a. Define 'stress adaptation'.

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(2.5 marks)

b. Why it is important to know about stress adaptation of microorganisms?

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(02 marks)

c. Mary had eaten peanuts and afterwards started having nausea and fever. Her mother observed some black colour powder on the leftover of peanuts that Mary had eaten. What is the most possible organism to cause the disease that Mary had suffered? Briefly explain about the organism and its toxin.

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(06 marks)

4.

a. What is meant by optimum growth level of a microorganism?

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(02 marks)

b. What is meant by sequence of growth of a microbial population?

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(03 marks)

c. Draw a graph to show diaoxic growth of a microbial population.



(04 marks)

d. List three (03) extrinsic factors that affect microbial growth and mention how they affect for their growth.

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(03 marks)

Part B

1.

a. Mrs. Silva made a pudding two weeks before the Christmas and put it in the refrigerator. On the Christmas day she observed that the pudding was spoiled. Explain the reasons for the above scenario with your knowledge in food microbiology.

(10 marks)

b. Discuss how our traditional methods lowered water activity along with pH and preserved food. Use examples where necessary.

(15 marks)

2.

a. 'Synegetic growth of microbial populations is important in yogurt production'. Briefly explain.

(05 marks)

b. Discuss the significance of psychrotrophic and thermotolerant microorganisms in the processing and refrigerated storage of food.

(10 marks)

c. Discuss the importance of sporeforming bacteria in food industry.

(10 marks)

