AR – 551

Third Semester B. Sc. (Part - II) Examination

3S : FOOD SCIENCE

(Food Microbiology)

P. Pages : 5

Time : Three Hours] [Max. Marks : 80

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1. (A) Fill in the blanks.

(i) The bacterial cell is of _____ type. (Eukaryotic / Prokaryotic)

(ii) _____ is a unicellular microorganism. (Protozoa / Yeast)

(iii) Conversion of milk into crud is due to _____ bacteria. (Lactobacillus / Hallophilic)

(iv) _____ is the complete distruction of microorganisms. (Pasteurization / Sterilization). 2

(B) Choose the correct alternative.

(i) _____ is not manufactured using fermentation.

(a) Cheese

(b) tofu

(c) noodles

(d) bread

(ii) Bacteria that can survive at high salinity.

(a) Halophiles

(b) Saccharophiles

(c) Thermophiles

(d) None of above

(iii) Having a non-cellular structure

(a) Yeast

(b) Virus

(c) Bacteria

(d) Protozoa

(iv) Alcoholic beverages can be produced from food containing

(a) Carbohydrates

(b) Proteins

(c) Lipids

(d) None of the above 2

(C) Answer in one sentence.

(i) Define anaerobic fermentation with example.

(ii) What is pure culture ?

(iii) Define spores.

(iv) What are a Acetobactor bacteria ? 4

2. Give the classification of microorganisms with examples.

OR

Draw a structure of cell and explain the organelles. 12

3. (a) Explain growth curve. 4

(b) Give an account of nutrition in microorganisms. 4

(c) Explain the working of chemostat. 4

OR

(p) Discuss synchronized and balance growth. 4

(q) Explain the steps in binary fission. 4

(r) Explain serial dilution technique. 4

4. (a) Give bacterial classification according to its shape, give examples. 4

(b) Give an account of Acetobactor and Aeromonus bacteria and their importance. 4

(c) What are thermophillic and acid forming bacteria ? 4

OR

(p) Explain the general characteristics of bacteria. 4

(q) Differentiate between gram positive and negative bacteria. 4

(r) Give an account of use of bacteria in food. 4

5. Give classification, structure and uses of Yeasts.

OR

Give classification, structure and uses of moulds. 12

6. (a) Give an account of preparation of Agar plates and slants. 4

(b) What is media ? Explain its types. 4

(c) Explain the methods of isolation of pure culture. 4

OR

(p) Explain any one method of enumeration of bacteria. 4

(q) Explain simple staining. 4

(r) Discuss sterilization with its importance. 4

7. (a) Explain the production of vinegar. 4

(b) Discuss the microbiology of milk. 4

(c) What is contamination ? Explain the causes. 4

OR

(p) What is fermentation ? Explain batch and continuous fermentation. 4

(q) Explain oriental fermented foods. 4

(r) Give an account of common food borne pathogenic microorganisms. 4