5. Give the classification and importance of yeast in food. Also discuss the structure of yeast. 12

OR

Give an account of classification, structure and importance of molds in food. 12

6. (A) Define media. Give its classification and types. 4

(B) What is pure culture ? Explain any one method to prepare pure culture. 4

(C) State the importance of sterilization in food microbiology. 4

OR

(D) What is staining ? Explain gram +ve staining. 4

(E) Discuss serial dilution technique. 4

(F) Discuss the terms asepsis and contamination. 4

7. (A) Explain the factors affecting spoilage microplora. 4

(B) What are the indicators of microbial spoilage ? 4

(C) What is fermentation ? Explain the advantages. 4

OR

(D) Discuss Clostridium Botulinum. 4

(E) Sources of microorganisms in food. 4

(F) Microbiology of fruits and vegetables. 4

AP–459

B.Sc. (Part–II) Semester–III Examination

3S : FOOD SCIENCE

(Food Microbiology)

Time—Three Hours] [Maximum Marks—80

Note :— (1) All questions are compulsory.
(2) Question Nos. **2** to **7** carry equal marks.

1. (A) Fill in the blanks :

(i) The biological classification of microorganism is known as _____. (Taxonomy/Kingdoms)

(ii) The time required for a complete division cycle is known as _____.
(Generationtime/Optimum time)

(iii) Media is used for the _____ of microorganism.
(Cultivation/Isolation)

(iv) Keeping of microorganism is known as _____.
(Prevention/Contamination) 2

(B) Choose the correct alternative :

(i) Obtaining and maintaining pure culture of bacteria is :

(a) Staining (b) Aseptic technique

(c) Spore staining (d) MPN technique

(ii) Aspergillus Niger is :

(a) Yeast (b) Bacteria

(c) Moulds (d) Virus

(iii) The technique uses only one dye is :

(a) Gram staining (b) Capsule staining

(c) Simple staining (d) Differential staining

(iv) Most causes of food poisoning are caused by :

(a) Microorganisms (b) Heavy metals

(c) Toxic plants (d) Oxidation 2

(C) Answer in **one** sentence :

(i) What is food microbiology ?

(ii) Enlist any four factors affecting growth of microorganisms.

(iii) What are gram positive bacteria ?

(iv) Define Fungi. 4

2. What is Taxonomy ? Explain the characteristics used to classify microorganisms. 12

OR

Explain the structure of a microbial cell with its organels and their functions. 12

3. (A) Explain the role of oxygen in microbial growth. 4

(B) Enlist the extrinsic parameters that affect the growth of microorganisms. Explain any one. 4

(C) Give an account of nutrition of microorganism. 4

OR

(D) Explain any one method for the measurement of cell mass. 4

(E) Differentiate between batch culture and continuous culture. 4

(F) What is growth ? What are the physiological effects of growth ? 4

4. (A) Discuss the important characteristics of bacteria. 4

(B) Classify bacteria on the basis of shape. 4

(C) Explain the importance of acetobactor bacteria in food. 4

OR

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

(E) Define and explain thermophillic bacteria. 4

(F) Importance of lactobacillus bacteria in food. 4