

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Food Technology

FTL 5B 09—FOOD MICROBIOLOGY—II

Time : Three Hours

Maximum : 80 Marks

A. Objective Type (Answer all questions) :

Multiple Choice :

- 1 Typical diacetyl flavor in curd is due to the action of :
(a) Homofermentors. (b) Heterofermentors.
(c) Yeasts. (d) Acetic acid bacteria.
- 2 The filter used to sterilize heat sensitive chemicals is :
(a) HEPA filter. (b) Whatman filter.
(c) Sand filter. (d) Cellulose acetate filter.
- 3 MPM test is mainly used for testing the microbial quality of :
(a) Meat. (b) Water.
(c) Cereals. (d) Eggs.
- 4 Spoilage of foods by red colour pigment production is caused by :
(a) *Streptococcus* sp. (b) *Serratia* sp.
(c) *Pseudomonas* sp. (d) *Coliforms*.
- 5 Typhoid is caused by eating food contaminated with :
(a) *Coliforms*. (b) *Staphylococcus* sp.
(c) *Salmonella* sp. (d) None of these.

Fill in the blanks :

- 6 The type of food poisoning caused by *S. aureus* is known as _____.
- 7 The site of action for Enterotoxin is _____.
- 8 TA spoilage in canned foods is caused by _____.
- 9 _____ agar plates are used to see production of metallic sheen by *E. coli*.
- 10 _____ method is used to purify desired bacteria from a mixture of cultures.

(10 × 1 = 10 marks)

Turn over

B. Short Answer Type Questions. Answer any 5 questions :

- 11 What is differential medium ? Provide examples.
- 12 Indicate the role of micro-organisms in dosa/idli fermentation.
- 13 What is irradiation ? How the production rooms can be irradiated ?
- 14 What are thermodurics ? What is their significance in foods ?
- 15 What is the principle of sterilization by autoclaving and hot air oven ?
- 16 What is Pasteurization ? What is its significance ?
- 17 What is botulism ? Indicate its causative agent.

(5 × 2 = 10 marks)

C. Short Essay Questions. (Answer any six questions) :

- 18 Write about anaerobic spoilage of meat products.
- 19 Describe the factors that affect the growth of micro-organisms in foods.
- 20 Indicate various processes of decomposition of amino acids in foods and the resultant products.
- 21 Describe various means of spoilage of cereal products and the role of microbes involved in spoilage of these products.
- 22 Explain the role of heavy metals as antimicrobial compounds along with suitable examples.
- 23 Distinguish selective, differential and enrichment media with suitable examples.
- 24 Explain about sources of contamination of micro-organisms in milk.
- 25 Distinguish the salmonellosis and staphylococcal foodborne diseases and write a note about it.

(6 × 5 = 30 marks)

D. Essay questions. Answer any two questions from three :

- 26 Describe in detail various methods used to isolate pure cultures.
- 27 Describe various sources of contamination of foods and the measures to reduce it.
- 28 What is sauerkraut ? Indicate its production method and role of micro-organisms in its preparation.
- 29 Write about various methods used to test microbiological quality of water.

(2 × 15 = 30 marks)