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Name.....

Reg. No.....

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2017

(CUCBCSS—UG)

Core Course—Food Technology

FTL 2B 03—FOOD MICROBIOLOGY—I

Time : Three Hours

Maximum : 80 Marks

Part A (Objective Type Questions)

All questions are compulsory.

I. Multiple Choices :

1. Pure culture technique is developed by :
(a) Robert Koch. (b) Louis Pasteur.
(c) Christian Gram. (d) A. V. Leeuwenhoek.
2. The most active form of bacterial cells can be found in the following phase :
(a) Log phase. (b) Lag phase.
(c) Stationary phase. (d) Decline phase.
3. The commonly used solidifying agent in bacteriological media is :
(a) Agraose. (b) Agar.
(c) Xanthan. (d) Peptone.
4. Lytic cycle is seen in :
(a) Bacteria. (b) Yeasts.
(c) Viruses. (d) Molds.
5. The causative agent of cholera is :
(a) *Salmonella*. (b) *Pseudomonas*.
(c) *E. coli*. (d) *Vibrio*.

II. Fill in the blanks :

- 6 Study of viruses is known as _____.
- 7 The process of gene transfer through pili is known as _____.

Turn over

- 8 The resistance to endospore is due to the presence of ————— compound.
- 9 Budding can be seen ————— group of micro-organisms.
- 10 The smallest distance by which two objects can be separated in a microscope is known as —————.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

Answer any five questions.

- 11 Dark field microscopy.
- 12 Transduction.
- 13 Streak plate technique.
- 14 Stationary phase of growth curve.
- 15 Storage granules in bacteria.
- 16 Asexual spores of fungi.
- 17 Bacteriophages.

(5 × 2 = 10 marks)

Part C (Short Essay or Paragraph Questions)

Answer any six questions.

- 18 Koch's postulates and contributions of Louis Pasteur.
- 19 Motility in bacteria.
- 20 Endospores of bacteria.
- 21 Compare chemotropism with autotrophism in bacteria.
- 22 Draw a neat diagram of a typical bacterial cell and label all components.
- 23 Compare Transmission and electron microscopes.
- 24 Describe various methods of preserving micro-organisms.
- 25 Replication in viruses.

(6 × 5 = 30 marks)

Part D (Essay Questions)

Answer any two questions.

- 26 Write a note of the following :
- (a) Compare the physiology of fungi and bacteria.
 - (b) Compare Gram positive and Gram negative bacteria.
- 27 Describe various physical conditions required for the growth of bacteria.
- 28 Compare the following :
- (a) Conjugation and Transduction.
 - (b) Ascomycetes and basidiomycetes.
- 29 Give a comparative account of light microscope and electron microscope.
- (2 × 15 = 30 marks)