

C 5609

(Pages : 3)

Name.....

Reg. No.....

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2016

(CUCBCSS—UG)

Core Course—Food Technology

FTL 2B 03—FOOD MICROBIOLOGY—I

Time : Three Hours

Maximum : 80 Marks

Part A (Objective Type)

All questions are compulsory.

I. Multiple Choices :

1 Mesosomes are seen in :

- | | |
|------------|---------------|
| (a) Virus. | (b) Bacteria. |
| (c) Mould. | (d) Yeasts. |

2 Which of the following coloured pigment is produced by *Micrococcus luteus* :

- | | |
|-------------|------------|
| (a) Red. | (b) Pink. |
| (c) Yellow. | (d) Black. |

3 Yellow fever is caused by :

- | | |
|------------------|------------|
| (a) Bacteria. | b) Mould. |
| (c) Ascomycetes. | (d) Virus. |

4 Birth scar is seen on the surface of :

- | | |
|-------------|-------------------|
| (a) Virus. | (b) Fungus. |
| (c) Yeasts. | (d) All of these. |

5 Which of the following is an example to filamentous bacteria :

- | | |
|----------------------|----------------------------|
| (a) Salmonella. | (b) Nocardiosis. |
| (c) <i>E. coli</i> . | (d) <i>Lactobacillus</i> . |

II. Fill in the blanks :

6 Increasing the water activity of the medium ——— lag phase of bacterial growth.

Turn over

- 7 *Aspergillus* and *Penicillium* can be distinguished by its _____.
- 8 Complete matured virus particle is known as _____.
- 9 Nonseptate fungal mycelium is called as _____.
- 10 The organism that obtains energy from light and uses inorganic compounds as a source of electrons is called as _____.

(10 × 1 = 10 marks)

Part B (Short Answer Type Questions)

Answer any five questions

- 11 Bacterial filaments.
- 12 Characteristics of Gram negative bacteria.
- 13 Streak plate technique.
- 14 Bright field microscopy.
- 15 Louis Pasteur.
- 16 Transformation in bacteria.
- 17 Fruiting bodies of fungi.

(5 × 2 = 10 marks)

Part C (Short Essay or Paragraph Questions)

Answer any six questions

- 18 Distinguish prokaryotes with eukaryotes.
- 19 Contributions of Edward Jenner and Robert Koch,
- 20 Enlist various bacterial enumeration methods and compare their advantageous and disadvantageous.
- 21 Characteristic features of Halophiles and Osmophiles with suitable examples.
- 22 Distinguish conjugation and transduction,
- 23 Different types of electron microscopes.
- 24 Classify bacteria based on morphological, features and provide suitable examples to each group.
- 25 Significance of endospores and examples of various bacteria that produce endospores.

(6 × 5 = 30 marks)

Part D (Essay Questions)

Answer any two questions.

- 26 Describe in detail about bacterial growth curve and its various phases.
- 27 Enlist various physical factors that influence for bacterial growth.
- 28 Write a note on the following :
- (a) Binary fission in bacteria.
 - (b) Morphology and structural features of a virus.
- 29 Write a detailed note on the following :
- (a) Distinguish phototrophs and chemotrophs.
 - (b) Distinguish sexual reproduction in fungi and bacteria.

(2 × 15 = 30 marks)