

C 5607

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Name.....

Reg. No.....

**SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2016**

(CUCBCSS—UG)

Core Course—Biotechnology

BTY 2B 02—GENERAL MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Answer any two questions in about 1,500 words.*

*Each question carries 10 marks.*

1. Explain the different physical methods of sterilization.
2. With suitable examples, discuss the nutritional classification of bacteria.
3. What are antibiotics ? Discuss the different types of antibiotics based on their mode of action.
4. Discuss the pentose phosphate pathway. What is the significance of this pathway ?

(2 × 10 = 20 marks)

**Section B**

*Answer any seven questions.*

*Each question carries 5 marks.*

5. With a neat diagram, explain the various stages in the growth of a bacteria.
6. Explain the lytic cycle of bacteriophages.
7. Elaborate the different factors affecting growth of bacteria in culture.
8. Differentiate between Prokaryotic and Eukaryotic cells.
9. Explain Koch's postulates.
10. Explain the Germ theory of disease.
11. Explain the uptake of nutrients by active transport, citing suitable examples.
12. Give an account of a Dermatomyososes.
13. Outline the electron transport chain.
14. How are fungi classified ?
15. Explain the principle of largential filtration.
16. What is AIDS ? What is the causative agent ? What are the manifestations ?
17. What are Arehaea ? How are they different from eubacteria ?
18. What are immunoglobulias ? How are they classified ?

(7 × 5 = 35 marks)

**Turn over**

**Section C**

*Answer all questions in about 300 words.*

*Each question carries 3 marks.*

19. Write briefly on plant viruses.
20. Why is Louis Pasteur called the father of microbiology? What are his contributions?
21. With suitable examples differentiate between selective and differential media.
22. Write a note on cholera.
23. Explain the different methods of growth measurement.

(5 × 3 = 15 marks)

**Section D**

*Answer all questions in about 200 words.*

*Each question carries 2 marks.*

24. Differentiate between antiseptics and disinfectants.
25. Write a note on innate immunity.
26. Write a note on Leeuwenhock and his microscopy.
27. Write a note on MacConkey agar medium and its uses.
28. Membrane filtration.

(5 × 2 = 10 marks)