

C 62604

(Pages r 2)

Name

Reg. No.....

SECOND SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MAY 2019

B.Sc. Biotechnology

BTY 2B 02—GENERAL MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

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

Each question carries 10 marks..

1. Describe in brief the life cycle of lytic and lysogenic phages.
2. Describe the pentose phosphate pathway.
3. Write a note on Koch's postulates and the role in determining the cause of diseases.
4. Discuss the different mechanisms exhibited by bacteria for acquiring energy.

(2 x 10 = 20 marks)

Section B

*Answer any **seven** out of fourteen questions in about 750 words.*

Each question carries 5 marks.

5. Describe the procedure followed for Gram's staining.
6. What are the symptoms and cause of typhoid ?
7. Write a brief note on sexual and asexual reproduction in bacteria.
8. What are facultative anaerobes ?
9. What is the germ theory ?
10. Differentiate between fermentation and respiration.
11. Describe the pour plate technique for initiating cultures ?
12. List major physical factors affecting microbial growth.
13. What are the different morphologies observed among bacteria ?
14. How is acidfast staining done ?
15. What is the role of the bacterial cell membrane ?

Turn over

16. How are bacteria in a culture identified ?
17. What are the primary barriers that the human body has to protect from diseases ?
18. What are the different types of mycoses ?

(7 x 5 = 35 marks)

Section C

*Answer **all** questions in about 300 words.
Each question carries 3 marks.*

19. What is the "periplasmic space" ?
20. What is a "pure culture" ?
21. What is the use of potato dextrose agar ?
22. What are methanogens ?
23. How can increase in microbial mass be monitored ?

(5x3= 15 marks)

Section 1)

*Answer **all** questions in about 200 words.
Each question carries 2 marks,*

24. What is a "wet mount" ?
25. What is a spheroplast ?
26. What is immunization ?
27. Give an example of a disease caused by a retrovirus ?
28. What are different rod-shaped bacteria called ?

(5 x 2 = 10 marks)