C 24748 (Pages : 2) Name...

Reg. No.....................................

SECOND SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2017

(CUCBCSS–UG)

Core Course—Biotechnology

BTY 2B 02—GENERAL MICROBIOLOGY

Time : Three Hours   Maximum : 80 Marks

Section A

Answer any **two** *out of four questions in about* 1500 *words each.*
Each question carries 10 *marks.*

1. Classification of bacteria.

2. With neat diagram, discuss nutrient uptake in micro-organisms.

3. Give an account of aerobic and anaerobic respiration in bacteria.

4. Discuss the different classes of immunoglobulins.

(2 × 10 = 20 marks)

Section B

Answer any **seven** *out of fourteen questions.*
Each question carries 5 *marks.*

5. Give an account of the developments in the prevention of disease.

6. Describe the methods of cultivation of viruses.

7. Explain lysogeny and lytric cycle.

8. Give an account on Leeuvenhoek and his microscopes.

9. Give an account on Penicillins.

10. Discuss the use of heat in sterilization.

11. Outline the pentose phosphate pathway.

12. Explain growth and reproduction in fungi.

13. How are fungi classified ? Explain briefly.

14. Give an account on media used for bacterial cultivation. What are the various components of growth media ?

15. Outline the morphological features of bacteria and fungi.

Turn over

16. Explain oxidative phosphorylation. What is the significance ?

17. Elaborate the different methods of growth measurements.

18. Write briefly on fungal diseases of the skin.

(7 × 5 = 35 marks)

Section C

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

19. Give an account of the fermentation media used in cultivation of bacteria.

20. What are the contributions of Edward Jenner to microbiology ?

21. Explain the importance of temperature in bacterial cultivation.

22. In what way does Mac Conkey Agar serve as a selective and differential medium ?

23. What are disinfectants ? Explain with suitable examples.

(5 × 3 = 15 marks)

Section D

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

24. Turbidimetry.

25. Diauxie growth.

26. Tetracyclin.

27. Potato dextrose agar.

28. Corn steep liquor.

(5 × 2 = 10 marks)