



K22U 1275

Reg. No. :

Name :

II Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, April 2022
(2019 Admission Onwards)

COMPLEMENTARY ELECTIVE COURSE IN BIOCHEMISTRY
2C02BCH : Biochemistry – II

Time : 3 Hours

Max. Marks : 32

SECTION – A

Answer **all** the questions. **Each** question carries **one** mark. (5×1=5)

1. Name the component amino acids in glutathione.
2. List out any four essential amino acids.
3. Differentiate between the sugar component in DNA and RNA.
4. What do you mean by base equivalence in DNA ?
5. What are conjugated proteins ? Give an example.

SECTION – B

Answer **any 4** questions. **Each** question carries **2** marks. (4×2=8)

6. Differentiate between a nucleoside and nucleotide.
7. State Beer-Lambertz Law.
8. What are nucleoproteins ? Give two examples.
9. Illustrate the formation of a peptide bond between two amino acids.
10. What are essential fatty acids ? Give two examples.
11. Write about the amphoteric nature of amino acids.

P.T.O.



SECTION – C

Answer **any 3** questions. **Each** question carries **3** marks.

(3×3=9)

12. Discuss briefly on the biological significance of peptides.
13. Write a comparison between different forms of DNA.
14. What are the structural features of tRNA ?
15. How are amino acids classified based on polarity ?
16. Write a short essay on colorimetry.

SECTION – D

Answer **any 2** questions. **Each** question carries **5** marks.

(2×5=10)

17. Give a detailed account of Watson and Crick model of DNA.
18. Write an essay on Thin layer chromatography.
19. Discuss about classification of lipids.
20. Explain the classification of proteins.



K22U 1301

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COMPLEMENTARY ELECTIVE COURSE IN MICROBIOLOGY

2C02 MCB : Basic Microbiology – II

Time : 3 Hours

Max. Marks : 32

SECTION – A

Short answer : Answer **all** questions. **Each** question carries **1** mark. **(5×1=5)**

1. Phage induction.
2. Factors affecting bacterial growth.
3. Generation time.
4. Prophage.
5. Release of phages.

SECTION – B

Short essay : Answer **any 4** questions. **Each** question carries **2** marks. **(4×2=8)**

6. Notes on measurement of bacterial growth.
7. Burst size.
8. Structure of T4 phage.
9. Discuss the Griffith experiment.
10. Notes on cultivation of phages.

P.T.O.

K22U 1301



SECTION – C

Essay : Answer **any 3** questions. **Each** question carries **3** marks. (3×3=9)

11. What are the different types of culture media used for bacterial isolation ?
12. Briefly discuss about the growth curve of bacteria.
13. Notes on specialized transduction with example.
14. Explain the temperate phage cycle mechanism.
15. What is bacterial heterotrophism ?

SECTION – D

Long essay : Answer **any 2** questions. **Each** question carries **5** marks. (2×5=10)

16. Explain the details of bacterial photosynthesis with suitable examples.
17. Discuss the detailed mechanisms of virulent phage cycle with suitable diagram.
18. Explain the gene transfer mechanisms in bacteria with suitable diagram.
19. Discuss the various pure culture techniques and culture preservation methods.