

TB221750V

Reg. No :

Name :

B. Sc. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022
(2022 Admissions (regular) 2021 Admissions (Improvement / Supplementary), 2020 Admissions Supplementary)
SEMESTER I - COMPLEMENTARY COURSE 1 (NUTRITION AND DIETETICS)
ND1C01B20 - FUNDAMENTALS OF BIOCHEMISTRY

Time : 3 Hours

Maximum Marks : 80

Part A

I. Answer any Ten questions. Each question carries 2 marks

(10x2=20)

1. Describe protein as a buffer in human body.
2. Identify different types of acids in the body with examples.
3. Define Per cent concentration with examples.
4. Define electron transport chain.
5. Enumerate the inhibitors of ETC.
6. Define Chemiosmotic Hypothesis.
7. Define Allele with an example.
8. Define Epistasis.
9. Define Genetic code.
10. Describe the term katal.
11. What is metalloenzyme?
12. Write about enzyme unit.

Part B

II. Answer any Six questions. Each question carries 5 marks

(6x5=30)

13. Discuss haemoglobin as an effective buffer in human body.
14. Discuss the applications of viscosity.
15. Discuss in brief the structural organisation of respiratory chain.
16. Differentiate between Oxidative Phosphorylation and Substrate level Phosphorylation.
17. Discuss in detail the structure of DNA.
18. Explain the different types of epigenetics.
19. Enlist and explain the theories related to enzyme mechanism.
20. How is prostaglandin synthesized in the body?
21. Write the classification of prostaglandins.

Part C

III. Answer any Two questions. Each question carries 15 marks

(2x15=30)

22. Discuss Transport Across Membranes with diagrams.
23. Describe the utilization of NADH and FADH₂ for ATP synthesis.
24. Illustrate and explain a) Production of chimeric DNA molecule using EcoR1 restriction endonuclease b) Insertional inactivation of Chloramphenicol gene of plasmid.
25. Explain the theories of mechanism of action of enzymes. Summarize the factors affecting the action.