



23104689

QP CODE: 23104689

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE
EXAMINATIONS, FEBRUARY 2023**

First Semester

B.Sc Clinical Nutrition and Dietetics Model III

**Complementary Course - CN1CMT01 - BIOCHEMISTRY-FUNDAMENTALS OF
BIOCHEMISTRY**

2017 Admission Onwards

3D568CA2

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What is the pH? What happens if the pH of body fluids fluctuates?
2. Define molarity.
3. Use a diagram to represent ATP synthesis through oxidative phosphorylation.
4. Draw the electron flow in ETC Complex II.
5. What is meant by a nucleoside?
6. What are the properties of DNA that gives it stability?
7. Which are the enzymes involved in the transcription in prokaryotes?
8. What is a gene?
9. Mention the different types of prostaglandins found in human body.
10. Differentiate between lyases and ligases.
11. Describe the steps of enzyme catalysis.
12. What is the significance of enzyme inhibition in the biological system?

(10×2=20)





Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Write a note on the branches of biochemistry.
14. Elaborate on the compounds that provide energy to reactions on breakdown.
15. Write a note on biological oxidation occurring in mitochondria.
16. Describe the events taking place in the nucleus of a cell at the time of cell division.
17. Which are the different types of DNA repair mechanisms?
18. Describe the lac operon concept and their findings.
19. Write a note on epigenetics and epistasis.
20. What are the physiological effects of prostaglandins?
21. Write a note on the effect of temperature, pH, substrate conc., enzyme conc. and product conc. on enzyme activity.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

22. Which are the distinctive mechanisms involved in the transport of micromolecules across biological membranes?
23. Explain the components and inhibitors of ETC.
24. What is rDNA technology? Mention its applications.
25. Explain the biosynthesis and functions of prostaglandins.

(2×15=30)

