



QP CODE: 25019445

25019445

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) ) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY  
CHANCE EXAMINATIONS, FEBRUARY 2025**

**Fourth Semester**

**Complementary Course - BC4CMT04 - BIOCHEMISTRY- NUTRITIONAL AND  
CLINICAL BIOCHEMISTRY**

(Common for B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring and Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management, B.Sc Botany Model II Plant Biotechnology, B.Sc Botany and Biotechnology Model III Double Main, B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology, B.Sc Zoology and Industrial Microbiology Model III Double Main, B.Sc Biological Techniques and Specimen Preparation Model III, B.Sc Biotechnology Model III, B.Sc Microbiology Model III)

2017 Admission Onwards

D8A5943F

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is the calorific value of proteins?
2. Give two sources of vitamin A.
3. Give two sources of vitamin B2.
4. Name the blood cell involved in blood clotting.
5. What is the percentage of albumin in total plasma protein?
6. How many polypeptide chains are there in hemoglobin?
7. What you mean by pre-analytical errors? Give one example.
8. What is CSF? Give its importance.
9. Illustrate how liver damage affect albumin-globulin concentration.
10. Name any four clinical features of Diabetes mellitus.
11. List out the different stages in the formation of atherosclerotic plaques.





12. Give any two silent features of ketosis.

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*

- 13. Summarise the nutritional facts of principle foods.
- 14. Discuss the importance of Sodium and potassium in diet.
- 15. Describe the importance of microminerals.
- 16. Discuss blood as a connecive tissue
- 17. What are anticoagulants? Explain with examples.
- 18. Briefly explain thyroid function tests
- 19. Analyze the importance of serum creatinine in kidney function.
- 20. Explain the causes of overweight and obesity.
- 21. Explain hyperlipidemia as a risk factor for cardiovascular disease.

(6×5=30)

**Part C**

*Answer any **two** questions.*

*Each question carries **10** marks.*

- 22. Write an essay on essential and non-essential fattyacids and aminoacids.
- 23. Explain the mechanism of blood clotting.
- 24. Explain the collection,preservation and storage of urine samples.
- 25. Explain lactose intolerance emphasising the different types and its biochemical basis.

(2×10=20)

