

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

M.Sc. FSND - END SEMESTER EXAMINATIONS APRIL - 2024

SEMESTER - II

**20PNDCT2006 - Nutritional Biochemistry**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. a) Define Oxidative Phosphorylation (2)  
b) Mention the factors affecting enzyme activity. (3)
2. Explain the hormonal regulations of blood glucose level.
3. a) Differentiate the transamination from deamination. (3)  
b) Relate the biological significance of amino acids in biochemistry. (2)
4. a) Discuss the functions of essential fatty acids. (3)  
b) What is meant by ketone bodies? (2)
5. Explain the functions and types of RNA.
6. Discuss the bioenergetics relationship between free energy, enthalpy & entropy.
7. Write a brief note on: i) Trans methylation ii) Co-enzyme.
8. Describe the important process in DNA replication.

### Section C

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. What are Antioxidants? Explain their role in prevention of degenerative disorders.
10. a) Explain in detail about Krebs cycle. (8)  
b) Why Krebs cycle is called an amphibolic pathway? (2)
11. a) Discuss briefly about the properties, functions of essential and non-essential amino acids. (5)  
b) Explain the urea cycle in detail. (5)
12. a) Describe the biosynthesis of fatty acids. (6)  
b) Examine the types of lipoproteins. (4)

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. a) Explain the structure and function of DNA in detail. (8)  
b) Give the significance Chargaff's rule. (2)

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