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. - END SEMESTER EXAMINATIONS APRIL - 2022 SEMESTER - II 20PNDCT2006 - Nutritional Biochemistry

Total Duration : 3 Hrs.

Total Marks : 60

Section A

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

- 1. What are free radicals? How are they formed?
- 2. Classify amino acids.
- 3. Explain the types and functions of essential amino acids.
- 4. What are the functions of nucleic acids?
- 5. Describe the process of gluconeogenesis.
- 6. Explain the process of catabolism of essential amino acids.
- 7. Classify lipoproteins and give its functions.
- 8. Differentiate between DNA and RNA.

Section B

Part A

Answer any **TWO** questions $(2 \times 10 = 20 \text{ Marks})$

- 9. Explain the mechanism of enzyme action and factors affecting enzymatic activity.
- 10. Explain the process of TCA cycle with the energetics.
- 11. Illustrate the process of transamination, oxidative deamination and urea cycle.
- 12. Describe the process of beta oxidation of fatty acids.

Part B

Compulsory question $(1 \times 10 = 10 \text{ Marks})$

13. Justify the role of hormones in regulation of carbohydrate , protein and fat metabolism.
