

**QP Code : 79567**

(3 Hours)

[ Total Marks : 100

- N. B. :** (1) All questions are compulsory.  
(2) Figures to the right indicate full marks.  
(3) Draw neat and labelled diagram wherever necessary.

1. Describe different types of carbohydrates with suitable examples. 20  
OR
1. Describe :-  
(a) Watson and Crick model of DNA. 10  
(b) Types of amino acids based on their structure. 10
2. Explain Michaelis Menten equation and Lineweaver Burk plot. Give significance of  $V_{max}$  and  $K_m$ . 20  
OR
2. Explain :-  
(a) Uncoupling of oxidative phosphorylation and its significance. 10  
(b) ATP-ADP cycle. 10
3. Give detailed account of process of Gluconeogenesis and its regulation. 20  
OR
3. Describe :-  
(a) Degradation of nucleotides. 10  
(b) Fate of Carbon skeleton of amino acid 10
4. Explain the concept of homeostasis with suitable examples. 20  
OR
4. Explain :-  
(a) Constitutive and inducible enzymes 10  
(b) G-6-PD deficiency. 10
5. Write notes on :- 20  
(a) Unsaturated fatty acids  
(b) Free radicals  
(c) Oxidative deamination  
(d) Zinc fingers  
OR
5. Write notes on :- 20  
(a) Biological functions of proteins  
(b) Antioxidants  
(c) Metabolism of Cholesterol  
(d) Albinism