

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM**

**DIPLOMA IN PHARMACY EXAMINATION – July 2021
First Year**

BIOCHEMISTRY AND CLINICAL PATHOLOGY

Time: Three hours

Maximum: 80 marks

Answer **Any EIGHT** questions only
All questions carry equal marks
Draw Neat, Labelled Diagram wherever necessary.

1. What are proteins? Classify them. Give the biological importance of protein and protein deficiency disease.
2. Classify carbohydrates. Write the chemical and qualitative test for carbohydrate identification.
3. i) Discuss on the chemistry of lipids and the biosynthesis of cholesterol.
ii) Explain the disease related to carbohydrate metabolism.
4. Describe the citric acid cycle and disorder its importance in metabolism.
5. Give an account of source, chemistry, biological functions, deficiency status and daily requirement of vitamin- D.
6. What are the mineral required for human nutrition? Explain the sodium and water metabolism.
7. Define amino acid. Classify them and give examples.
8. What are lymphocytes? Classify them and their disease related to lymphocytes.
9. Define vitamins. Classification of vitamin. Explain the vitamin – D.
10. Write notes on: i) Normal urine ii) Ketone bodies iii) Bile salts.
