SUBJECT: BIOCHEMISTRY & CLINICAL PATHOLOGY

COURSE: FINAL D.PHARM

UNIT 2 : PROTEINS & LIPIDS

TABLE 1: VERY SHORT ANSWER QUESTIONS (1–2 Marks)

Q. No	Questions	Syllabus Area	Exam Mapping (Year – Example)	Bloom's Level
1	Define proteins.	Proteins – Definition	TNMGRMU (2022)	Remember
2	What are simple proteins? Give one example.	Protein classification	TNMGRMU (2021)	Remember
3	Name any two fibrous proteins.	Protein classification	GPAT (2020)	Remember
4	Define amino acids.	Amino acids	TNMGRMU (2023)	Remember
5	What are essential amino acids?	Nutritional classification	GPAT (2021)	Understand
6	What is primary structure of protein?	Protein structure	TNMGRMU (2022)	Understand
7	Name any one qualitative test for protein.	Protein tests	TNMGRMU (2020)	Remember
8	Define lipids.	Lipids – Definition	TNMGRMU (2021)	Remember
9	What is cholesterol?	Cholesterol	GPAT (2019)	Remember
10	Name any two lipoproteins.	Lipoproteins	NIPER (2020)	Remember

TABLE 2: SHORT ANSWER QUESTIONS (3–5 Marks)

Q. No	Questions	Syllabus Area	Exam Mapping (Year – Example)	Bloom's Level
1	Classify proteins based on composition with examples.	Proteins	TNMGRMU (2023)	Understand
2	Classify proteins based on solubility.	Proteins	GPAT (2022)	Understand
3	Classify amino acids based on chemical nature with examples.	Amino acids	TNMGRMU (2022)	Understand
4	Write a short note on secondary structure of proteins.	Protein structure	GPAT (2021)	Understand
5	Explain biological functions of proteins.	Protein functions	TNMGRMU (2021)	Apply
6	Explain Biuret test for proteins.	Qualitative tests	TNMGRMU (2020)	Apply

7	Classify fatty acids based on nutritional requirement.	Fatty acids	GPAT (2022)	Understand
8	Write properties of triglycerides.	Lipids	TNMGRMU (2023)	Understand
9	Explain structure of cholesterol.	Cholesterol	NIPER (2021)	Understand
10	Write functions of lipids in the body.	Lipids	TNMGRMU (2022)	Apply

TABLE 3: LONG ANSWER QUESTIONS (8–10 Marks)

Q. No	Questions	Syllabus Area	Exam Mapping (Year – Example)	Bloom's Level
1	Define proteins and explain their classification based on composition and solubility with examples.	Proteins	TNMGRMU (2023)	Analyze
2	Define amino acids and classify them based on chemical nature and nutritional requirements with examples.	Amino acids	GPAT (2022)	Analyze
3	Explain the four levels of organization of protein structure with diagrams.	Protein structure	TNMGRMU (2021)	Analyze
4	Describe qualitative tests for proteins and amino acids with principles.	Protein tests	TNMGRMU (2020)	Apply
5	Discuss protein malnutrition and explain diseases associated with it.	Protein malnutrition	GPAT (2021)	Evaluate
6	Define lipids and explain their classification with examples.	Lipids	TNMGRMU (2022)	Analyze
7	Describe structure and properties of triglycerides (oils and fats).	Triglycerides	GPAT (2020)	Analyze
8	Explain lipoproteins – types, composition and functions.	Lipoproteins	NIPER (2021)	Analyze

TABLE 4: CASE-BASED QUESTIONS (Clinical / Application Oriented)

Case No	Case-Based Question	Focus Area	Exam Mapping	Bloom's Level
1	A 4-year-old child presents with edema, muscle wasting and low serum albumin. Identify the disease and explain its biochemical basis.	Protein malnutrition	TNMGRMU (2023)	Analyze
2	A patient has high LDL and low HDL levels. Explain the risk involved and role of lipoproteins.	Lipoproteins	GPAT (2022)	Analyze
3	A patient shows positive Biuret and Ninhydrin tests. Interpret the results.	Qualitative tests	TNMGRMU (2021)	Apply
4	A malnourished patient is advised essential fatty acids. Explain why they are essential and their functions.	Fatty acids	GPAT (2021)	Evaluate
5	A patient with hypercholesterolemia is advised dietary	Cholesterol	NIPER	Evaluate

changes. Explain cholesterol structure and functions related to the condition. (2020)