Question Bank - Structure of Cell: Its Components and Their Functions

S.No	Question	Marks	Bloom's Level	Mapping (TNMGRMU / GPAT / MRB / Pharma)
1	Define a cell.	2	Knowledge	TNMGRMU (Unit I), GPAT basics, MRB fundamentals
2	Name any four cell organelles and their primary functions.	2	Knowledge/Recall	GPAT (cell biology), Pharma basics
3	Differentiate between prokaryotic and eukaryotic cells (any 2 points).	2	Understanding	TNMGRMU past Qs, GPAT
4	Write the functions of plasma membrane.	2	Understanding	MRB, GPAT (cell transport relevance)
5	Mention any two differences between plant and animal cells.	2	Knowledge	TNMGRMU, MRB
6	Describe the structure and functions of mitochondria.	5	Understanding & Application	TNMGRMU past papers, GPAT, Pharma (toxicity)
7	Explain the structure and role of nucleus in protein synthesis.	5	Analysis	TNMGRMU Dec 2022, GPAT, Pharma (anticancer)
8	Write a note on endoplasmic reticulum and its types.	5	Understanding	GPAT, MRB
9	Discuss the role of ribosomes as drug targets.	5	Application & Analysis	GPAT pharmacology, Pharma antibiotics
10	Explain the functions of Golgi apparatus with examples.	5	Understanding	MRB syllabus, Pharma relevance
11	Explain the structure of the cell with a neat labeled diagram.	10	Knowledge & Understanding	TNMGRMU Oct 2021, GPAT basics
12	Discuss the structure and functions of cell organelles with clinical relevance.	10	Analysis & Application	TNMGRMU, GPAT, Pharma (toxicology relevance)
13	Write in detail about the role of plasma membrane in drug transport and receptor signaling.	10	Application & Evaluation	GPAT (membrane transport), Pharma relevance
14	Differentiate plant cell and animal cell in detail with diagrams.	10	Knowledge & Understanding	TNMGRMU, MRB
15	Explain the pharmacological importance of lysosomes, mitochondria, and cytoskeleton as drug targets.	10	Analysis & Evaluation	GPAT pharmacology, Pharma (anticancer, storage diseases)