GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
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QUESTION BANK (DESCRIPTIVE)
DATA ENGINEERING
A.Y2024-25

Subject Name with Code: 23A32003T   **Branch:CSE(DS)**
Year& Semester:II-II   **Regulation;RG23**

UNIT – I

UNIT-I: Introduction to Data Engineering: Definition, Data Engineering Life Cycle, Evolution of Data Engineer, Data Engineering Versus Data Science, Data Engineering Skills and Activities, Data Maturity, Data Maturity Model, Skills of a Data Engineer, Business Responsibilities, Technical Responsibilities, Data Engineers and Other Technical Roles

UNIT-1		
S. No.	**Question**	**[BT Level] [CO][Marks]**
Descriptive Questions (Long)		
1	What is meant by Data Engineering?Explain about it overview detail with a neat sketch?	L2/CO1/10M
2	Explain briefly about the data engineering life cycle in detail with a neat sketch.	L2/CO1/10M
3	Differentiate between Data Engineering vs Data Science in detail ? Explain them with a neat sketch.	L2/CO1/10M
4	Write a short note on Evolution of data engineering in real time ?	L2/CO1/10M
5	Explain briefly about data engineering skills &activities in detail with a neat sketch?	L2/CO1/10M
6	What is Data maturity?Explain briefly about the Data Maturity model in detail with neat sketch?	L2/CO1/10M
7	Explain briefly about the skills of data engineering to be performed in real time?	L2/CO1/10M
8	Write a short note on Business & techinques responsibilities in Data engineering?	L2/CO1/10M
9	What is meant by data engineering?Explain briefly about its technical role in real time?	L2/CO1/10M
10	Explain briefly about the Data Engineering vs Data Sscience in real time world?	L2/CO1/10M

UNIT - II

Data Engineering Life Cycle: Data Life Cycle Versus Data Engineering Life Cycle, Generation: Source System, Storage, Ingestion, Transformation, Serving Data.

Major undercurrents across the Data Engineering Life Cycle: Security, Data Management, DataOps, Data Architecture, Orchestration, Software Engineering.

UNIT-2. Methodologies-I

S. No.	Question	[BT Level] [CO][Marks]
Descriptive Questions (Long)		
1.	Differentiate between Data Life Cycle vs Data Engineering Life Cycle with a neat sketch?	L2/CO2/10M
2.	Explain briefly about the Data Life Cycle vs Data Engineering Life Cycle in detail with a neat sketch.	L2/CO2/10M
3.	Explain briefly about major undercurrents across the Data Engineering Life Cycle with a neat sketch	L2/CO2/10M
4.	Write a short note on generation & source system in data engineering?	L2/CO2/10M
5.	Write a short note on data ingestion &data transformation in data engineering?	L2/CO2/10M
6.	Explain briefly about data security &data management in Data Engineering with a neat sketch?	L2/CO2/10M
7.	Explain briefly about the Data Ops & Data Orchestration in data engineering?	L2/CO2/10M
8.	Write short note on data Architecture &software engineering principles in real time?	L2/CO2/10M
9.	Write a short note on data storage &data serving in Data Engineering?	L2/CO2/10M
10.	List out the steps of Major undercurrents in data engineering life cycle &explain brief about them?	L2/CO2/10M