

**Francis Xavier Engineering College**  
**(An Autonomous Institution)**  
**Department of Computer Science and Engineering**  
**Year/Sem : IV/VII**  
**Degree/Branch : B.E. – Computer Science and Engineering**  
**19CS7701 DATA MINING**

**Question Bank – Unit 1**

**Part A**

Q.No.	Question	CO-K Level	PO-PI Code
1.	What is the need of data warehouses?	CO1-K2	4.6.3
2.	Why OLAP is used?	CO1-K2	4.6.4
3.	How is multidimensional data model used in data warehouse?	CO1-K1	4.6.4
4.	What is the primary purpose of building the multidimensional model?	CO1-K2	4.6.3
5.	What is a data cube?	CO1-K1	4.6.3
6.	Define dimensions.	CO1-K1	4.6.3
7.	Differentiate between a data warehouse and a data mart.	CO1-K4	4.6.2
8.	How can you tell the difference between fact and dimension tables?	CO1-K4	4.4.2
9.	What do you understand about a fact table in the context of a data warehouse?	CO1-K4	4.4.2
10.	What are the applications of metadata?	CO1-K1	4.6.3
11	Give the differences between a database and a data warehouse.	CO1-K4	4.4.2
12	How role of operation makes changes on data cube?	CO1-K2	4.6.3

**Part B**

Q.No.	Question	CO-K	PO-
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		Level	PI Code
1.	Define metadata and explain the types of metadata.	CO1-K2	4.4.1
2.	Explain multidimensional data model with a neat diagram.	CO1-K2	4.6.3
3.	What do you mean by OLAP in the context of data warehousing? What guidelines should be followed while selecting an OLAP system?	CO1-K1	4.4.1
4.	Differentiate data warehouse and database base management system.	CO1-K4	4.6.2
5.	What do you understand about a data cube in the context of data warehousing?	CO1-K1	4.4.1
6.	List out the OLAP operations and explain the same with an example.	CO1-K1	4.4.1
7.	What do you mean by dimensional modelling in the context of data warehousing?	CO1-K1	4.4.1
8.	Compare OLAP vs OLTP and explain what will happen if we use the same database for both OLAP and OLTP?	CO1-K4	4.6.2
9.	Differentiate between star schema and snowflake schema in the context of data warehousing.	CO1-K4	4.6.2
10.	Discuss about the purpose of various Data warehousing Components with the diagram.	CO1-K2	4.6.3
11	Analyse and build the data warehouse for Financial Sector.	CO1-K4	1.7.1
12	Analyse and build the data warehouse for Educational Sector.	CO1-K4	1.7.1

## Question Bank – Unit 2

### Part A

Q.No.	Question	CO-K Level	PO-PI Code
1.	What are the major applications of data warehousing?	CO2-K1	4.6.3
2.	Compare ROLAP and MOLAP.	CO2-K4	4.4.3

3.	How is virtual data warehouse different from distributed data warehouse?	CO2-K2	4.4.2
4.	Why is it that tuning is difficult in a data warehouse?	CO2-K2	4.5.1
5.	What are major issues that will be faced in data warehouse development?	CO2-K2	4.6.3
6.	What are the challenges in ETL process?	CO2-K4	4.6.2
7.	What are the three tiers of data warehouse architecture?	CO2-K1	4.4.1

## Part B

Q.No.	Question	CO-K Level	PO-PI Code
1.	How does data warehouse contribute to business intelligence?	CO2-K2	4.6.1
2.	Explain in detail about the implementation of a data warehousing.	CO2-K2	4.6.3
3.	How does data visualization help in data warehousing? How do you create an effective visualization?	CO2-K4	4.6.3
4.	Define data warehouse. Draw the architecture of data warehouse and explain the three tiers in detail.	CO2-K4	4.5.1
5.	What are the challenges in tuning the data warehouse? How do you optimize a data warehouse?	CO2-K4	4.4.3
6.	How do you test a data warehouse? Discuss about the different types of testing in data warehouse.	CO2-K2	4.6.1
7.	What do you understand by data staging and ETL explain with suitable structure?	CO2-K2	4.5.1
8.	Discuss the development lifecycle of a data warehouse.	CO2-K2	4.6.3

9.	What are the best practices for data warehouse Deployment, Maintenance, Growth?	CO2-K2	4.5.1
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### Question Bank – Unit 3

#### Part A

Q.No.	Question	CO-K Level	PO-PI Code
1.	What is the difference between KDD and data mining?	CO3-K4	4.4.2
2.	What do you understand by Data Mining?	CO3-K2	4.4.1
3.	Why is KDD important?	CO3-K2	4.4.1
4.	What are the major issues in data mining?	CO3-K4	4.6.2
5.	What is data mining query languages?	CO3-K1	4.6.2
6.	Why pre-processing is needed in data mining?	CO3-K4	4.6.2
7.	What do you mean by pre-processing of data in data mining?	CO3-K1	4.6.2
8.	How do you clean the data as the step of data preprocessing?	CO3-K2	4.6.2
9.	What is noise in data mining?	CO3-K1	4.6.2
10.	How do you treat missing data?	CO3-K1	4.6.2

#### Part B

Q.No.	Question	CO-K Level	PO-PI Code
1.	Compare the different techniques used for data mining.	CO3-K4	2.6.4
2.	How does data mining work? Discuss the different stages in data mining process.	CO3-K2	3.6.3
3.	Discuss about task primitives	CO3-K2	4.6.2
4.	What do you mean by data mining? Differentiate between data mining and data warehousing.	CO3-K4	3.5.1
5.	How pre-processing improves the accuracy in data mining?	CO3-K2	4.6.2
6.	Discuss in detail about Mining frequent patterns.	CO3-K2	4.6.2