



**Second Semester MCA Degree Examination, June/July 2023**  
**Data Mining and Business Intelligence**

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.  
 2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define data warehouse. Explain the key features of data warehouse.	5	L2	CO1
	b.	With a neat diagram, explain three tier data ware house architecture.	10	L2	CO1
	c.	Give differences between: i) Rollup and drill down ii) Slice and dice	5	L2	CO1
<b>OR</b>					
Q.2	a.	Discuss typical OLAP operations with an example.	10	L2	CO1
	b.	Explain the following terms: i) Data mart ii) Virtual ware house iii) Data cube iv) ROLAP and MOLAP	10	L2	CO1
<b>Module – 2</b>					
Q.3	a.	What is data mining? Explain the process of Knowledge Discovery in Database (KDD) with a neat diagram.	10	L2	CO2
	b.	Explain the classification of datamining systems.	10	L2	CO2
<b>OR</b>					
Q.4	a.	What is data processing? What are the steps involved in it? Explain any 2 steps in detail.	10	L2	CO2
	b.	Explain any two data mining primitives in detail.	10	L2	CO2
<b>Module – 3</b>					
Q.5	a.	What is the concept of description? Explain data generalization and summarization based characterization in detail.	10	L2	CO3
	b.	Explain Apriori algorithms for frequent item set generation in detail.	10	L2	CO3
<b>OR</b>					
Q.6	a.	Explain market basket analysis in detail.	10	L2	CO3
	b.	Describe briefly incremental associative role mining.	10	L2	CO3
1 of 2					

Module – 4					
Q.7	a.	What is classification and prediction? Explain the issues regarding classification and prediction.	10	L2	CO4
	b.	Explain Bayesian classification method in detail.	10	L2	CO4
OR					
Q.8	a.	Explain linear and nonlinear regression prediction methods.	10	L2	CO4
	b.	Explain decision tree classification method in detail	10	L2	CO4
Module – 5					
Q.9	a.	Explain the following data mining business applications: i) Balance score card ii) Fraud detection	10	L2	CO4
	b.	Explain click stream mining in detail.	10	L2	CO4
OR					
Q.10	a.	Explain data analytics life cycle in detail.	10	L2	CO4
	b.	What are core deliverables? Explain various functions involved in developing core deliverables for stack holders.	10	L2	CO4

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