



P.E.S. College of Engineering, Mandya - 571 401
 (An Autonomous Institution affiliated to VTU, Belagavi)
Third Semester, Master of Computer Applications (MCA)
Semester End Examination; February / March - 2022
Business Intelligence-Data Warehousing and Analytics

Time: 3 hrs

Max. Marks: 100

Course Outcomes

The Students will be able to:

CO1: Demonstrate process associated with BI framework and apply best practices in BI/Data warehousing.

CO2: Demonstrate technology and processes associated with Business Intelligence framework for data integration.

CO3: Construct data models and prototypes needed to achieve business objectives.

CO4: Demonstrates how effectively a company is achieving key business objectives using KPIs at multiple levels.

CO5: Design an enterprise dashboard that depicts the key performance indicators which helps in decision making.

Note: I) Answer any FIVE full questions, selecting ONE full question from each unit.**II) Any THREE units will have internal choice and remaining TWO unit questions are compulsory.****III) Each unit carries 20 marks.**

Q. No.	Questions	Marks	BLs	COs	POs
UNIT - I					
1 a.	With a neat diagram, explain BI architecture with reference to administration and operation layer.	10	L1,L2	CO1	PO1,2
b.	Give the difference between OLAP and OLTP and explain in detail.	10	L1,L2	CO2	PO1,2
UNIT - II					
2 a.	Discuss the importance of data integration and explain any two data integration approach.	10	L1,L5	CO2	PO1,2
b.	Define Data Quality. Describe the different dimensions of data quality.	10	L5	CO2	PO1,2
UNIT - III					
3 a.	Discuss any two dimensional models with example.	10	L2	CO3	PO1,2
b.	With a neat diagram, explain the life cycle of a dimensional model.	10	L5	CO3	PO1,2
OR					
3 d.	Elaborate on the three different types of data models.	10	L2	CO3	PO1,2
e.	Write a note on:				
	i) ER model	10	L1	CO3	PO1,2
	ii) Fact table				

Contd... 2

UNIT - IV

- 4 a. What are KPI? Discuss the role of KPI with respect to Human resources. 10 L1,L2 CO4 PO1,2
- b. What are the SMART tests that can be conducted for business? Also discuss any five metrics for supply chain management. 10 L1,L2 CO4 PO1,2

OR

- 4 d. What are the components of a metric data? Explain any five salient features of a good metric. 10 L1,L5 CO4 PO1,2
- e. Discuss the potential sources for business metrics and explain its relationship between business world and the technical world with a neat diagram. 10 L6 CO4 PO1,2

UNIT - V

- 5 a. With a neat diagram, explain a balanced score card. Give an insight on the four perspective balanced scorecard. 10 L1,L5 CO5 PO1,2,3,5
- b. Elaborate the different types of reporting layouts and formats with an example. 10 L6 CO5 PO1,2,3,5

OR

- 5 d. List and explain any five best practices in a BI dashboard. 10 L1,L2 CO5 PO1,2,3,5
- e. With an emphasis on corporate, explain the various features of a dashboard. 10 L1,L2 CO5 PO1,2,3,5

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