



## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

**Eighth Semester, B.E. - Computer Science and Engineering**

**Semester End Examination; June - 2017**

**Business Intelligence and Application**

Time: 3 hrs

Max. Marks: 100

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

### UNIT - I

- |      |   |    |
|------|---|----|
| 1 a. | With a neat diagram, explain briefly Malcolm Baldrige criteria for performance excellence framework.                                  | 10 |
|      | b. List and explain different OLAP architectures.   | 10 |
| 2 a. | Explain briefly with neat diagram, characteristics of structured and unstructured data.   | 10 |
|      | b. Explain briefly challenges faced in storing semi-structured data and list the possible solutions for storing semi structured data. | 10 |

### UNIT - II

- |      |   |    |
|------|---|----|
| 3 a. | Explain briefly OLAP operations on multidimensional data.   | 10 |
|      | b. Differentiate between ERP and BI.  | 10 |
| 4 a. | Construct an ER diagram and dimensional model for the following scenario: There is a publishing home which operates from its offices spread across the country. For their convenience, the publishing house classifies the country into 4 regions (North, South, East and West). Each of their offices belongs to one of the region. Several authors are in contract with the publishing house. An author can be in contract for publication of one or more of their work, either with the same publishing house or multiple publishing houses. But a particular book by an author can be published by only one publishing house. A book can also be co-authored. | 10 |
|      | b. Define Business Intelligence. List important features of Business Intelligence.  | 10 |

### UNIT - III

- |      |   |    |
|------|---|----|
| 5 a. | Explain briefly Business layer of the BI component framework.                     | 10 |
|      | b. Explain briefly BI Business solutions.   | 10 |
| 6 a. | Explain briefly prime goals of a data warehouse.                                  | 10 |
|      | b. Define data integration. Explain briefly two main data integration approaches. | 10 |

### UNIT - IV

- |      |  |    |
|------|--|----|
| 7 a. | List and explain classification of data models.                      | 10 |
|      | b. Explain briefly dimensional modeling life cycle.                  | 10 |
| 8 a. | List any five smart tests for ensuring metric relevance to business. | 5  |
|      | b. List any five supply chain associated with metric.                | 5  |

c. Explain following terms with respect to system terminology :

- |               |             |             |    |
|---------------|-------------|-------------|----|
| i) Data       | ii) Measure | iii) Metric | 10 |
| iv) Indicator | v) Index.   |             |    |

**UNIT - V**

- 9 a. List any five potential sources for metrics. 10
- b. List and explain any five common perspectives of reporting that apply at all levels of the enterprise. 10
- 10a. Explain briefly four perspectives of balanced scorecard with a neat diagram. 10
- b. Explain briefly steps for creating dashboard and list any two benefits of the dashboard. 10

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