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

(An Autonomous Institution affiliated to VTU, Belgaum)

**Third Semester, M.Tech. - Computer Science and Engineering (MCSE)**

**Semester End Examination; Dec - 2016/Jan - 2017**

**Business Intelligence and Its Applications**

*Time: 3 hrs*

*Max. Marks: 100*

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

### UNIT - I

- 1 a. Discuss the characteristics of structured data, the sources of structured data and Hassle-Free Retrieval. 10
- b. Explain modeling Semi-Structured data the OEM way. 10
- 2 a. What is dimensional data? Compare 1-D, 2-D and 3-D data with relevant examples. 10
- b. Explain the important features of Business Intelligence and types of decisions supported by BI. 10

### UNIT - II

- 3 a. What is data integration? Describe the two approaches to data integration. 10
- b. Describe the technologies used for data integration. 10
- 4 a. What is data quality and data integrity? Explain each with relevant examples. 10
- b. Describe when and how to conduct Data profiling? 10

### UNIT - III

- 5 a. Is the OLTP database design optimal for a data warehouse? Give reasons. 8
- b. Briefly explain the following : 12
  - i) Granularity of a fact table
  - ii) Star scheme
  - iii) Snowflake schema.
- 6 a. Explain dimensional modeling life cycle. 12
- b. Summarize different types of dimension tables. 8

### UNIT - IV

- 7 a. Describe the SMART test for ensuring metric relevance to business. 10
- b. Summarize how KPIs are used by companies? 7
- c. List measurement system terminology. 3
- 8 a. Briefly explain the four components of metric data. 8
- b. Describe the salient attributes of a good metric. 12

### UNIT - V

- 9 a. Describe common prospectus of reporting that apply at all levels of the enterprise. 8
- b. What are the common formats of report delivery? 8
- c. List the parameters of four balanced score board prospectus. 4
- 10 a. Discuss the critical focus areas of enterprise reporting the OLAP world. 10
- b. Describe balanced scorecard as a management system and summarize the benefits of balanced scorecard. 10