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**MANIPAL INSTITUTE OF TECHNOLOGY**

Manipal University, Manipal

Karnataka -576104

**Course Plan**

**Department : Computer Science & Engineering**

**Course Name & code : Business Intelligence &its Applications**

**[Elective 4] – CSE437**

**Semester & branch : VII Computer Science & Engineering**

**Name of the faculty : Mr. Shyam Karanth, Mr. Siva Selvan**

**No of contact hours/week : 04**

**ASSESSMENT PLAN:**

1. **In Semester Assessments - 50 %**

* Written tests : 2 Written test with maximum marks [ 20 for each]
* Surprise quizzes : 5 Assignment Quizzes For 2 Marks Each

1. **End Semester Examination - 50 %**

* Written examination of 3 hours duration (Max. Marks: 50 )

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| **Portions for Assignment** | |
| **Assignment no.** | **Topics** |
| **1** | **L1-L10** |
| **2** | **L11-L20** |
| **3** | **L21-l30** |
| **4** | **l31-l39** |
| **5** | **l40-l48** |
| **Portions for Sessional Test** | |
| **Test no.** | **Topics** |
| **1** | **L1-L20** |
| **2** | **L21-L40** |

**Course Plan**

|  |  |
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| **Lecture no.** | **Topics to be covered** |
| **1** | Types of digital data |
| **2** | Introduction to OLTP, OLAP |
| **3** | Data Mining, BI Definitions & Concepts |
| **4** | Business Applications of BI, BI Framework |
| **5** | Role of Data Warehousing in BI |
| **6** | BI Process, BI Technology, BI Roles & Responsibilities |
| **7** | Concepts of data integration |
| **8** | need and advantages of using data integration |
| **9** | introduction to common data integration approaches |
| **10** | introduction to common data integration approaches |
| **11** | introduction to common data integration approaches |
| **12** | Introduction to data quality |
| **13** | Introduction to data quality |
| **14** | Introduction to data quality |
| **15** | data profiling concepts and applications |
| **16** | data profiling concepts and applications |
| **17** | data profiling concepts and applications |
| **18** | data profiling concepts and applications |
| **19** | data profiling concepts and applications |
| **20** | data profiling concepts and applications |
| **21** | Introduction to SSIS Architecture |
| **22** | Introduction to ETL using SSIS |
| **23** | Integration Services objects |
| **24** | Sources, Transformations and Destinations |
| **25** | Working with transformations, containers, tasks, precedence constraints and event handlers. |
| **26** | Working with transformations, containers, tasks, precedence constraints and event handlers. |
| **27** | Introduction to data and dimension modeling |
| **28** | multidimensional data model |
| **29** | ER Modeling vs. multi dimensional modeling |
| **30** | concepts of dimensions, facts, cubes, attribute, hierarchies, star and snowflake schema |
| **31** | concepts of dimensions, facts, cubes, attribute, hierarchies, star and snowflake schema |
| **32** | introduction to business metrics and KPIs |
| **33** | creating cubes using SSAS |
| **34** | creating cubes using SSAS |
| **35** | Introduction to enterprise reporting |
| **36** | Introduction to enterprise reporting |
| **37** | Introduction to enterprise reporting |
| **38** | concepts of dashboards, balanced scorecards, |
| **39** | concepts of dashboards, balanced scorecards, |
| **40** | concepts of dashboards, balanced scorecards, |
| **41** | concepts of dashboards, balanced scorecards, |
| **42** | concepts of dashboards, balanced scorecards, |
| **43** | introduction to SSRS Architecture |
| **44** | introduction to SSRS Architecture |
| **45** | introduction to SSRS Architecture |
| **46** | enterprise reporting using SSRS |
| **47** | enterprise reporting using SSRS |
| **48** | enterprise reporting using SSRS |

**References:**

**1. David Loshin, “Business Intelligence”, Morgan Kaufmann Publishers, 2003**

**2. Mike Biere, “Business Intelligence for the Enterprise”, 2nd edition, IBM Press, 2003**

**3. R N Prasad, Seema Acharya, “Fundamentals of Business Analytics”, Wiley India, 2011**

**Submitted by:**

**Mr. Shyam Karanth**

**(Signature of the faculty)**

**Date: 29-07-2015**

**Approved by:**

**(Signature of HOD)**

**Date:**

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