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**MANIPAL INSTITUTE OF TECHNOLOGY**  
**MANIPAL**  
*(A constituent unit of MAHE, Manipal)*

**V SEMESTER B.TECH. (COMPUTER SCIENCE AND ENGINEERING)**  
**END SEMESTER MAKEUP EXAMINATIONS, NOV/DEC 2018**

**SUBJECT: BUSINESS INTELLIGENCE AND ITS APPLICATIONS [CSE 4024]**

**REVISED CREDIT SYSTEM**  
**(28/12/2018)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitable assumed.

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| <b>1A.</b> | Why Business Intelligence fails? How one can make Business Intelligence succeed?   | <b>4</b> |
| <b>1B.</b> | With the neat diagram explain UIMA architecture.   | <b>4</b> |
| <b>1C.</b> | Explain different aspects of Human Capital Productivity Analytics.   | <b>2</b> |
| <b>2A.</b> | List and explain different types of metadata.  | <b>2</b> |
| <b>2B.</b> | When to conduct data profiling? How to conduct data profiling?   | <b>5</b> |
| <b>2C.</b> | Explain the components of business requirements.   | <b>3</b> |
| <b>3A.</b> | Explain different types of containers in SQL Server Integrity Services (SSIS).   | <b>3</b> |
| <b>3B.</b> | Explain Data Mining Query Task.  | <b>2</b> |
| <b>3C.</b> | (i) Explain the junk/garbage dimension with examples.<br>(ii) Explain the term “grain” with an example.  | <b>5</b> |
| <b>4A.</b> | (i) Briefly explain three classes of schemas that are popularly used for modeling data warehouses.<br>(ii) Suppose that a data warehouse consists of the three dimensions <i>time</i> , <i>doctor</i> , and <i>patient</i> , and the two measures <i>count</i> and <i>charge</i> , where <i>charge</i> is the fee that a doctor charges a patient for a visit. Draw a schema diagram for the above data warehouse using one of the schema classes listed in (i). | <b>5</b> |
| <b>4B.</b> | Starting with the base cuboid [ <i>day</i> , <i>doctor</i> , <i>patient</i> ], what specific <i>OLAP</i> operations should be performed in order to list the total fee collected by each doctor in 2010? (Refer 4A)  | <b>3</b> |
| <b>4C.</b> | To obtain the same list, write an SQL query assuming the data are stored in a relational database with the schema <i>fee</i> ( <i>day</i> , <i>month</i> , <i>year</i> , <i>doctor</i> , <i>hospital</i> , <i>patient</i> , <i>count</i> , <i>charge</i> ). (Refer 4A and 4B)  | <b>2</b> |
| <b>5A.</b> | Explain four characteristics of good KPIs. List important 9 KPIs used by the Human Capital and Training management division of “GoodFood Restaurants Inc.”   | <b>5</b> |

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| <b>5B.</b> | Explain five enterprise report standardization perspectives. | <b>2</b> |
| <b>5C.</b> | Explain three types of Dashboards.                           | <b>3</b> |

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