Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS2011** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Database Systems** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Illustrate and explain the overall architecture of database systems. | CO1 | **20** |
| **(OR)** | | | | |
| 2. | a. | Construct an entity relationship model for a real time application.Showing atleast ten components and label the feature of the components. | CO1 | **20** |
| 3. | a. | Explain the fundamental operations of relational algebra with suitable examples. | CO1 | **20** |
| **(OR)** | | | | |
| 4. | a. | Discuss in detail set operations and aggregate functions of SQL with examples. | CO2 | **20** |
| 5. | a. | Illustrate and explain transitive dependency with an example. | CO2 | **10** |
|  | b. | Explain how normalization done using BCNF with example. | CO2 | **10** |
| **(OR)** | | | | |
| 6. | a. | Explain join, different types of join and effect of join concept in generating a  report with suitable examples. | CO3 | **20** |
| 7. | a. | Define Trigger. Explain the procedure for creating a trigger performing insert  and delete operations with a suitable example.Also discuss about advantages of using triggers. | CO4 | **20** |
| **(OR)** | | | | |
| 8. | a. | What is a view? Explain the effect of view feature with example containing  atleast three tables. | CO4 | **20** |
|  | | **Compulsory:** |  |  |
| 9. | a. | What is RAID storage? Explain how RAID technology used for storage process in database systems. | CO4 | **20** |

ALL THE BEST