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**RNS Institute of Technology**

**Department of MCA**

**V Semester - II Test – Oct 2018**

**Internet of Things (16MCA552)**

**Duration: 90 mins. Max Marks: 45 Time:9. 00a.m-10: 30a.m Date: 25/10/2018**

**NOTE: Answer *FIVE* full questions.**

***Don’t write anything on question paper other than USN.***

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| **Qn.**  **No.** | | **Questions** | **Marks** | **BCL** | **CO** |
| 1 | a) | What is Open Geospatial Consortium architecture. | 2 | L1 | CO3 |
|  | b) | Explain the functionality of OGS SWE. | 7 | L2 | CO3 |
| **OR** | | | | | |
| 2 | a) | With the diagram, explain ITU-T IoT reference model. | 3+6 | L1 | CO3 |
|  | b) |  | 8 | L2 | CO3 |
|  | | | | | |
| 3 | a) | With a neat diagram, briefly explain the IoT Reference Model. | 5 | L1 | CO3 |
|  | b) | Define class diagram. | 4 | L2 | CO3 |
| **OR** | | | | | |
| 4 | a) | Give the representation of class diagram for the following   1. Association ii. Aggregation iii. Generalization | 2 | L1 | CO3 |
|  | b) |  | 7 | L2 | CO3 |
|  | | | | | |
| 5 | a) | Illustrate an example how to represent physical world into digital world. | 7 | L2 | CO3 |
|  | b) | Define virtual entity. | 2 | L2 | CO3 |
| **OR** | | | | | |
| 6 | a) | List and explain types of devices in IoT domain model. | 2 | L1 | CO3 |
|  | b) | Explain safety, privacy and trust. | 7 | L2 | CO3 |
|  | | | | | |
| 7 | a) |  | 2 | L1 | CO3 |
|  | b) | Describe IoT-A Functional Model. | 7 | L2 | CO3 |
| **OR** | | | | | |
| 8 | a) |  | 6 | L2 | CO3 |
|  | b) |  | 3 | L2 | CO3 |
|  | | | | | |
| 9 | a) |  | 7 | L2 | CO4 |
|  | b) |  | 2 | L2 | CO4 |
| **OR** | | | | | |
| 10 | a) |  | 9 | L1 | CO4 |

**Course Outcomes:**

CO1: Explore the constraints and opportunities of M2M, wireless and mobile networks of IoT

CO2: Analyze the societal impact of IoT Security events

CO3: Acquire the fundamental knowledge of devices and sensors

CO4: Interpret the architecture of M2M and IoT

CO5: Design or develop parts of an Internet of Things solution and map it toward selected business model(s)

CO6: Evaluate ethical and potential security issues related to the Internet of Things