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| **B. E. Degree (Autonomous) Eighth Semester End Examination (SEE), May 2018/June 2018** | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | |
| **INTERNET of THINGS** | | | | | | | | | | | | | | | | | | | |
| **(Model Question Paper – III)** | | | | | | | | | | | | | | | | | | | |
| **Time: 3 Hours ]** | | | | | | | | | | |  | | | | **[ Maximum Marks: 100** | | | | |
|  | | | | | | | **Instructions to students:**  **Answer FIVE FULL questions.** | | | | | | | | | |  | | |
|  | | | | | | | | | | | | | | | | | | | |
| **Q.No.** | | | **Questions** | | | | | | | | | | | | | **Marks** | | **CO** | **RBT Cognitive Level** |
| **1.** | **a)** | | Summarize the summary of cellular M2M market situation. | | | | | | | | | | | | | 10 | | CO1 | L2 |
| **b)** | | Explain various emerging IoT applications. | | | | | | | | | | | | | 10 | | CO1 | L3 |
| **OR** | | | | | | | | | | | | | | | | | | | |
| **2.** | **a)** | | Explain the generic M2M System Solution with a neat diagram | | | | | | | | | | | | | 10 | | CO1 | L3 |
| **b)** | | Summarize the Megatrends, Capabilities and implications of IoT. | | | | | | | | | | | | | 10 | | CO1 | L3 |
|  | | | | | | | | | | | | | | | | | | | |
| **3.** | **a)** | | Describe M2M value chain with a neat diagram | | | | | | | | | | | | | 10 | | CO2 | L2 |
| **b)** | | Explain an information driven value chain for IoT with a neat diagram | | | | | | | | | | | | | 10 | | CO2 | L3 |
| **OR** | | | | | | | | | | | | | | | | | | | |
| **4.** | **a)** | | Discuss the various IoT architectural objectives. | | | | | | | | | | | | | 10 | | CO2 | L2 |
| **b)** | | Explain the functional layers and capabilities of an IoT solution with a neat diagram. | | | | | | | | | | | | | 10 | | CO2 | L3 |
|  | | | | | | | | | | | | | | | | | | | | 8 Marks |
| **5.** | **a)** | | Explain the purposes and considerations for analytics in M2M/IoT. | | | | | | | | | | | | | 10 | | CO3 | L3 |
| **b)** | | Describe the analytics architecture for M2M/IoT with a neat diagram. | | | | | | | | | | | | | 10 | | CO3 | L2 |
| **OR** | | | | | | | | | | | | | | | | | | | |
| **6.** | **a)** | | Explain the various phases in CRISP-DM process model by using an example from Predictive Maintenance (PdM) for pump stations in a water distribution network. | | | | | | | | | | | | | 10 | | CO3 | L3 |
| **b)** | | Explain the knowledge reference architecture for M2M and IoT in detail. | | | | | | | | | | | | | 10 | | CO3 | L3 |
|  | | | | | | | | | | | | | | | | | | | |
| **7.** | **a)** | | Illustrate ITU-IoT Reference model in detail with a neat diagram. | | | | | | | | | | | | | 10 | | CO4 | L2 |
| **b)** | | Explain OGC functional architecture and interactions with a neat diagram. | | | | | | | | | | | | | 10 | | CO4 | L3 |
| **OR** | | | | | | | | | | | | | | | | | | | |
| **8.** | **a)** | | Illustrate ETSI M2M High Level architecture with a neat diagram | | | | | | | | | | | | | 10 | | CO4 | L2 |
| **b)** | | Explain ETSI M2M service capabilities in detail with a neat diagram | | | | | | | | | | | | | 10 | | CO4 | L3 |
|  | | | | | | | | | | | | | | | | | | | |
| **9.** | **a)** | | Explain M2M SOA based integration with a neat diagram. | | | | | | | | | | | | | 10 | | CO5 | L3 |
| **b)** | | Describe SOCRADES integration architecture (SIA) enables the coupling of industrial machines at shop floor and enterprise systems with a neat diagram. | | | | | | | | | | | | | 10 | | CO5 | L2 |
| **OR** | | | | | | | | | | | | | | | | | | | |
| **10.** | **a)** | | Explain IMC-AESOP cloud based architecture with a neat diagram. | | | | | | | | | | | | | 10 | | CO5 | L3 |
| **b)** | | Explain the deployment and operational view, resources, services, virtual entities, users in an IoT system by considering a Parking lot example. | | | | | | | | | | | | | 10 | | CO5 | L3 |

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