USN | | | | | | | | | | **16MCA552**

Fifth Semester MCA Degree Examination, Dec.2018/Jan.2019
Internet of Things

Time: 3 hrs.   Max. Marks: 80

Note: *Answer FIVE full questions, choosing one full question from each module.*

Module-1

1   a.   Explain in detail, M2M communication.   (05 Marks)
     b.   Give a summary of megatrends, capabilities and IOT implications.   (05 Marks)
     c.   Explain M2M approach with an example.   (06 Marks)

OR

2   a.   Compare the characteristics of M2M and IOT.   (08 Marks)
     b.   Explain IOT approach with an example.   (08 Marks)

Module-2

3   a.   With a neat diagram, explain information-driven value chain for IOT.   (10 Marks)
     b.   Define the terms: i) Global value chains   ii) Ecosystems   iii) Industrial structure.
                                                                                            (06 Marks)

OR

4   a.   Explain the functional layers and capabilities of an IOT solution.   (10 Marks)
     b.   Explain architectural design principles for IOT.   (06 Marks)

Module-3

5   a.   Explain various service and deployment models of a cloud.   (10 Marks)
     b.   Explain M2M data from the point of generation to business assessment. Explain with the
          help of a neat diagram.   (06 Marks)

OR

6   a.   With a neat diagram, explain how IOT has been integrated with enterprise systems.
                                                                                            (10 Marks)
     b.   Explain knowledge management reference architecture.   (06 Marks)

Module-4

7   a.   Write a note on key M2M elements.   (06 Marks)
     b.   Discuss ETSI M2M service capabilities with suitable diagram.   (10 Marks)

OR

8   a.   Explain ITU-IOT reference model.   (06 Marks)
     b.   Explain with a neat diagram, how mapping between IOT domain model and deployment
          view is done?   (10 Marks)

Module-5

9   a.   Explain SOA-based device integration.   (08 Marks)
     b.   Explain various levels of SOCRADES integration architecture.   (08 Marks)

OR

10 a.   Explain the evolution of commercial building automation.   (08 Marks)
     b.   Explain IMC-AESOP cloud-based architecture vision for IOT.   (08 Marks)

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