Reg. No. :

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Computer Science and Engineering

15UCS910- BUILDING INTERNET OF THINGS

(Regulation 2015)

Duration: 1.15 hrs   Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. A wi-fi enabled device can be   CO1- R

    (a) PC   (b) Game console   (c) Mobile phone   (d) All of the above

2. RFID stands for_____   CO1- R

    (a) Radio-field identification   (b) Radar-frequency identification

    (c) Radio-frequency identification   (d) None of the above

3. Gyroscope is a sensor which measures the _____   CO2- R

    (a) Acceleration   (b) Velocity   (c) Physical orientation   (d) Pressure

4. Which one of the below instance are not a type of actuator   CO2- R

    (a) An electric motor   (b) A hydraulic system
    (c) A pneumatic system   (d) Microphone

5. Information about an objects history is called_____   CO3- R

    (a) Object data   (b) Event data   (c) Security data   (d) None of these

6. When do we call the states are safely exportable?   CO3- R

    (a) A goal state is unreachable from any state

    (b) Goal state is denied access

    (c) A goal state is reachable from every state

    (d) None of the mentioned

7. EURIDICE Context Model is represented within the _____   CO4- R

(a) Cyc Knowledge Base

(b) Cyc Ontology Base

(c) Cyc Context Base

(d) All of the above

8. RFD stands for   CO4- R

(a) Reduced Function Devices

(b) Reduced Field Devices

(c) Reduced Functionality Devices

(d) Reduced Functional Devices

9. _____ is the feature of cloud computing that allows the service to   CO5- R
change in size or volume in order to meet a user's needs.

(a) Scalability   (b) Virtualization   (c) Security   (d) Cost-savings

10. REST services operate over_____ protocols.   CO5- R

(a) UDP   (b) HTTP   (c) TCP   (d) All of these

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. What is RFID and Explain its Applications.   CO1- U   (8)

12. Write Arduino sketch to control the state of a temperature sensor and   CO2- U   (8)
to print the reading in a serial monitor.

13. Explain the design guidelines for an efficient clustering process.   CO3- U   (8)

14. A trader has to deploy a DiY based WSAN for selling agricultural   CO4- U   (8)
produce. Propose a suitable architecture for the same and describe the
role of different elements of the network with neat diagrams

15. Assume that you are deploying a smart agricultural IoT. How are the   CO5- U   (8)
devices resource constrained in your IoT? How will you web-enable
them? Explain with suitable illustrations and sketches

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