C20-CM-WD-CAI-AIM-CCB-CCN–504

7638

BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER / NOVEMBER—2023

DCME – FIFTH SEMESTER EXAMINATION

INTERNET OF THINGS

Time : 3 Hours]   [*Total Marks* : 80

PART—A   3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. List out any three features of IoT.

2. What is the role of a sensor in an IoT network?

3. What are the components of MQTT?

4. List the features of AMQP.

5. State the purpose of bluetooth technology.

6. What are the modes of operation of NFC?

7. Name the types of sensor networks.

8. What are the challenges in wireless sensor networks?

9. What are the components of cloud computing?

10. State the importance of cloud computing.

Instructions : (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain the components of IoT network.

(OR)

(b) Explain the service oriented architecture of IoT.

12. *(a)* Explain XMPP communication protocol.

(OR)

(b) Explain CoAP communication protocol for IoT.

13. *(a)* Explain the topologies of ZIGBEE protocol.

(OR)

(b) Explain the working principle of NFC.

14. *(a)* Explain the role of IoT in smart home and health care

(OR)

(b) Explain the wireless multimedia sensor networks.

15. *(a)* Explain the NIST visual model of cloud computing with a neat sketch.

(OR)

(b) Explain the service models of cloud computing.

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Consider the following conversation on an instant messaging app using XMPP.

Student : Good morning teacher. Which lab are we scheduled for?

Teacher : Very good morning. You are scheduled to IoT lab.

Construct an XMPP stanza for the above instant messaging.

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