

# C20-CM-CAI-AIM-CCB-CCN-WD-CAI-504 7638

## **BOARD DIPLOMA EXAMINATION, (C-20)**

### OCTOBER / NOVEMBER—2024

#### **DCME - FIFTH SEMESTER EXAMINATION**

#### INTERNET OF THINGS

Time: 3 Hours [ Total Marks: 80

#### PART-A

 $3 \times 10 = 30$ 

**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.** Define IoT and list any three features.
- 2. List advantage and disadvantages of IoT.
- **3.** List features of XMPP.
- **4.** What are the features of AMQP?
- **5.** List features of IEEE 802.15.4.
- **6.** Write briefly about NFC.
- **7.** Write about wireless sensor network.
- **8.** List the applications of M2M.
- **9.** Define cloud computing.
- **10.** What is cloud simulator?

**PART—B** 8×5=40

**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 functional components of IoT.

(OR)

- (b) Explain various connectivity technologies in IoT.
- **12.** (a) Explain MQTT in detail.

(OR)

- (b) Explain CoAP and message types in detail.
- **13.** (a) Explain different topologies of ZIGBEE.

(OR)

- (b) Explain about PicoNet.
- **14.** (a) Explain wireless multimedia sensor networks in detail.

(OR)

- (b) Explain information theoretic self-management in WSN.
- **15.** (a) Explain components of cloud computing.

(OR)

(b) Explain security concepts in cloud.

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**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.** How would you best describe IoT? Why it has gained so much popularity in the recent years?

