7638

BOARD DIPLOMA EXAMINATION, (C-20)

MAY/JUNE—2023

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.
- **2.** What is the need of sensor in IoT?
- **3.** Define MQTT.
- **4.** List the features of AMQP.
- **5.** What is ZIGBEE?
- **6.** What is the purpose of Bluetooth?
- **7.** List the applications of WSN.
- **8.** What is machine to machine communications?
- **9.** What is cloud computing?
- **10.** List the features of cloud computing.

/7638 1 [Contd...

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 service oriented architecture of IoT.

(OR)

- (b) Explain various connecting technologies in IoT.
- **12.** (a) Explain about CoAP.

(OR)

- (b) Explain about XMPP.
- **13.** (a) Explain working principle of NFC.

(OR)

- (b) Explain about IEEE 802.15.4.
- **14.** (a) Explain about Wireless Multimedia Sensor Networks (WMSN).

(OR)

- (b) Explain about information theoretic self-management in WSN.
- **15.** (a) Explain how data is managed in cloud (D BaaS).

(OR)

(b) Explain about security concepts in cloud.

/7638 2 [Contd...

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.** Justify the role of IoT in Smart Home applications in detail by choosing appropriate case study.

