

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

**MAY/JUNE—2023**

**DCME - FIFTH SEMESTER EXAMINATION**

**INTERNET OF THINGS**

*Time : 3 Hours ]*

*[ Total Marks : 80*

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**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. 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.

**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.

## PART—C

10×1=10

- Instructions :** <sup>\*</sup>
- (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.

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