

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER - 2023**

INTERNET OF THINGS

[Maximum marks: 75]

[Time: 3 Hours]

PART A

I. Answer all the following questions in one word or one sentence. Each question carries 1 mark

(9 x 1 = 9 Marks)

		Module outcome	Cognitive level
1	Define IoT.	M1.01	U
2	List any two IoT enabling technologies.	M1.03	U
3	Define MQTT.	M2.02	U
4	Write any two transport layer protocol in IoT.	M2.03	U
5	Name any two cloud services in IoT.	M3.03	U
6	List any two cloud deployment model.	M3.01	U
7	Name any two embedded computing boards in IoT.	M4.02	U
8	List any two sensors in IoT.	M4.03	U
9	Write any two control structures used in python.	M4.04	U

PART B

II. Answer any eight questions from the following. Each question carries 3 marks.

(8 x 3 = 24 Marks)

		Module outcome	Cognitive level
1	Explain the characteristics of IoT.	M1.01	U
2	List the use of communication protocols in IoT.	M1.03	U
3	Write short notes on BLE.	M2.03	U
4	Write short notes on IPv6.	M2.04	U
5	Difference between Fog and Edge computing.	M3.04	U
6	Name the selection criteria's of Cloud service provider.	M3.03	U
7	Briefly explain any three Cloud computing security aspects.	M3.05	U
8	Write down the features of NodeMCU computing board.	M4.02	U
9	Briefly explain python data types.	M4.04	U
10	Write down the role of actuator in IoT.	M4.01	U

PART C

Answer all questions. Each question carries seven marks

(6 x 7 = 42 Marks)

		Module outcome	Cognitive level
III	Explain the major challenges in IoT. OR	M1.05	U
IV	Demonstrate the Applications of IoT.	M1.01	U
V	Illustrate the architectural level of IoT. OR	M1.05	U
VI	Explain the layers of IoT stack.	M1.02	U
VII	Explain MQTT messaging protocol with diagram. OR	M2.02	U
VIII	Illustrate the working of Li-Fi.	M2.03	U
IX	Briefly explain IPV4 protocol format. OR	M2.04	U
X	Briefly explain URI (Uniform resource Identifier).	M2.04	U
XI	Explain the challenges of Cloud with IoT. OR	M3.02	U
XII	Briefly explain Fog Computing.	M3.04	U
XIII	Explain different type of sensors in IoT. OR	M4.01	U
XIV	Explain the features of Raspberry PI.	M4.02	U
