

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL - 2026**

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 a <i>thing</i> in IoT.	M1.01	R
2	List any two IoT enabling technologies.	M1.03	R
3	In MQTT, the servers are called.....	M2.02	R
4	The bit length of an IPv6 address is.....	M2.04	R
5	List the two major protocols in the transport layer.	M2.01	R
6	Fog nodes are placed near to the cloud and away from the host. True or false.	M3.04	R
7	List any two cloud service providers.	M3.01	R
8	Name any one embedded computing board used for IoT.	M4.02	R
9	Name the original operating system for Raspberry Pi.	M4.02	R

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	Outline the relationship of big data analytics with IoT.	M1.03	U
2	List any three characteristics of IoT.	M1.01	R
3	Summarize the basic concept of BLE.	M2.03	U
4	Write a short note on the features of MQTT.	M2.01	R
5	Outline the concept of URI.	M2.04	U
6	Describe the relationship between IoT and cloud computing.	M3.01	U
7	Summarize the advantage of Fog computing in IoT.	M3.04	U
8	Outline the functions of actuators.	M4.01	U
9	Indicate the usage of digital, analog and PWM pins of Node MCU.	M4.03	U
10	Outline the concept of smart transportation.	M4.06	U

PART C

Answer all questions. Each question carries seven marks.

(6 x 7 = 42 Marks)

		Module outcome	Cognitive level
III	Explain different IoT levels with figures. OR	M1.04	U
IV	Explain the challenges in IoT.	M1.03	U
V	Explain the concept of Big Data Analysis in IoT enabling technologies. OR	M1.04	U
VI	Summarize the components in the IoT stack.	M1.02	U
VII	Explain CoAP protocol with a diagram. OR	M2.02	U
VIII	Outline the concept and working of LiFi.	M2.03	U
IX	Explain the characteristics of cloud computing. OR	M3.01	U
X	Explain the challenges in cloud computing with IoT.	M3.02	U
XI	Illustrate the features of Arduino Uno. OR	M4.02	U
XII	Illustrate the interfacing of sensors with Raspberry Pi by writing a program to blink an LED.	M4.05	U
XIII	Differentiate sensors and actuators. OR	M4.01	U
XIV	Illustrate the interfacing of sensors with Arduino Uno.	M4.03	U
