DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2025

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 '*one*' mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	Define IoT.	M1.01	R
2.	Write any two challenges in IoT	M1.05	U
3.	List any two transport protocols.	M2.01	R
4.	The size of IP address in IPv6 is ----------	M2.04	R
5.	IaaS stand for...............	M3.01	R
6.	List any two security issues in cloud computing.	M3.05	U
7.	What is the role of an actuator?	M4.01	R
8.	Name any two embedded computing boards in IoT.	M4.02	R
9.	List any two sensors used in IoT applications.	M4.03	R

PART-B

II. Answer any '*eight*' questions from the following. Each question carries '*three*' marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	What are the features of Internet of Things?	M1.01	U
2.	Explain the Things in IoT.	M1.02	U
3.	Describe Layer 1 and Layer 2 in IoT Stack.	M1.02	U
4.	Write short note on IPv6.	M2.04	U
5.	Describe the features of BLE.	M2.03	R
6.	Describe cloud deployment models.	M3.01	U
7.	Write short note on Fog computing.	M3.04	U
8.	Describe the role of sensors in IoT.	M4.01	U
9.	Briefly explain python data types.	M4.04	U
10.	Write the features of Arduino computing board.	M4.02	U

PART-C

Answer *'all'* questions from the following. Each question carries *'seven'* marks.

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Illustrate the architectural level of IoT.	M1.05	U
	OR		
IV.	Explain different IoT enabling technologies.	M1.03	U
V.	Explain Constrained Application Protocol (CoAP).	M2.02	U
	OR		
VI.	Explain URI (Uniform Resource Identifier).	M2.04	U
VII.	Explain the working of Li - Fi with diagram.	M2.03	U
	OR		
VIII.	Explain MQTT messaging protocol with diagram.	M2.02	U
IX.	Explain the selection of cloud service provider for IoT applications.	M3.03	U
	OR		
X.	Explain the security issues in cloud computing.	M3.04	U
XI.	Explain the features of Raspberry PI.	M4.02	U
	OR		
XII.	Illustrate the working of smart transportation and smart healthcare built with IoT.	M4.06	U
XIII.	Explain the interfacing of any one sensor with Arduino.	M4.03	U
	OR		
XIV.	Explain about python packages.	M4.04	U

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