

Code: 20ES1602

**III B.Tech - II Semester – Regular / Supplementary Examinations
APRIL 2024**

**INTERNET OF THINGS
(INFORMATION TECHNOLOGY)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	What are the three architecture domain functionalities in M2M architecture? Compare IOTWF with M2M.	L2	CO1	7 M
	b)	Summarize the characteristics of IOT.	L2	CO1	7 M
OR					
2	a)	Sketch and Explain Simplified IOT Architecture.	L2	CO1	7 M
	b)	Explain IOT impact on enabling technologies for IOT.	L2	CO1	7 M
UNIT-II					
3	a)	Identify Various IOT access technologies and discuss IEEE 1901.2a with respect to Physical Layer, MAC Layer.	L2	CO2	7 M

	b)	Explain in detail IEEE 802.15.4 IOT access technology.	L2	CO2	7 M
OR					
4	a)	Dramatize different types of Actuators in IOT.	L3	CO2	7 M
	b)	Discuss the common commercially available sensors used for IOT-based sensing applications.	L2	CO2	7 M
UNIT-III					
5	a)	Prepare an Arduino program to control traffic light.	L3	CO3	7 M
	b)	Illustrate the elements required to choose the right platform for the IOT devices.	L3	CO3	7 M
OR					
6	a)	Illustrate about IDE? Explain the concept of pushing code in Arduino.	L3	CO3	7 M
	b)	Utilize setup() and loop() routines to write a simple program and also explain each.	L3	CO3	7 M
UNIT-IV					
7	a)	Demonstrate networked communication between two hosts following the TCP/IP suite with a block diagram.	L3	CO4	7 M
	b)	Analyse the usage of HTTP and HTTPS protocols in application layers.	L4	CO4	7 M
OR					
8	a)	Distinguish IPv6 over IPv4 protocol in details.	L4	CO4	7 M
	b)	Illustrate in detail various IP address assignments.	L3	CO4	7 M

UNIT-V

9	a)	Interpret mashing up APIs, Legalities, Scraping.	L3	CO5	7 M
	b)	Select any two messaging protocols and discuss in details.	L4	CO5	7 M
OR					
10	a)	Illustrate the prototyping online components of writing a new API with Clockodillo example.	L3	CO5	7 M
	b)	Explain the process for getting started with an API.	L4	CO5	7 M