PRN No.	

PAPER CODE	U 313 - 292 - ESE

December 2023 (ENDSEM) EXAM
TY B. TECH. (SEMESTER - I)

COURSE NAME:	BRANCH:	COURSE CODE:
INTERNET OF THINGS	ELECTRONICS AND TELECOMMUNICATION	ETUA31202

(PATTERN 2020)

Time: [1Hr. 30 Min]   [Max. Marks: 40]

(*) Instructions to candidates:
1) **Figures to the right indicate full marks.**
2) **Use of scientific calculator is allowed**
3) **Use suitable data wherever required**
4) **All questions are compulsory. Solve any one sub question from Question 3 and any two sub questions each from Questions 4,5 and 6 respectively.**

NOTE BT levels -1: Remember, 2: Understand, 3: Apply, 4. Analyze, 5. Create

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Discuss the Identifiers used in IoT system.	[2]	CO1	Understand
Q2	a) Explain Block diagram of RFID system with frequency ranges.	[2]	CO2	Apply
Q3.	a) Discuss following protocol used in IoT i) Z-wave Protocol ii) HART protocol	[6]	CO3	Understand
	b) Sketch and explain MODBUS Protocol with two transmission mode.	[6]	CO3	Apply
Q.4	a) Sketch and explain AMQP protocol used in IoT.	[5]	CO4	Apply
	b) Explain Application layer IoT protocol in detail.	[5]	CO4	Apply
	c) Explain COAP protocol in detail.	[5]	CO4	Apply
Q.5	a) What is Big Data? Elaborate the types of Big Data.	[5]	CO5	Understand
	b) Discuss the various characteristics of Big Data.	[5]	CO5	Understand
	c) Sketch and explain Hadoop Architecture.	[5]	CO5	Apply

Q.6)	a) Explain in detail How IoT plays an important role in smart city, smart appliances.	[5]	CO6	Apply
	b) Illustrate in detail How IoT plays an important role in Smart parking, smart lightning?	[5]	CO6	Apply
	c) Describe in detail application of Internet of Things in Health monitoring system.	[5]	CO6	Apply