

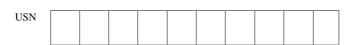


## Internal Assessment Test III – Jan. 2022

Sub:			Intern	et of Things				Sub Code:	20MCA32
Date:	22/01//2022	<b>Duration:</b>	90 min's	Max Marks:	50	Sem:	III	Branch:	MCA

Note: Answer FIVE FULL Questions, choosing ONE full question from each Module OBE **PART I** MARKS CO RBT 1 Explain Edge analytics in detail with a neat diagram. [10] CO4 L2 2 With a neat diagram explain 6LoWPAN protocol header compression and [10] fragmentation. CO3 L2 [10] **PART II** 3 Explain in detail the smart city IOT layer architecture. CO5 L2 4 Describe MQTT framework message format in detail. [10] CO3 L2

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			O	BE
	PART I	MARKS		
			CO	RBT
1	Explain Edge analytics in detail with a neat diagram.  OR	[10]	CO4	L2
2	With a neat diagram, 6LoWPAN protocol header compression and fragmentation.	[10]	СОЗ	L2
	PART II	[10]		
3	Explain in detail the smart city IOT layer architecture.  OR		CO5	L2
4	Describe MQTT framework message format in detail.	[10]	СОЗ	L2

5	PART III  Describe the different components of FNF with a neat diagram  OR	[10]	CO4	L2
6	Explain tunneling legacy SCADA over IP networks and SCADA protocol transition with a neat diagram.	[10]	CO3	L2
7	PART IV  Evenlain Formal Dials analysis atmustures (OCTAVE & FAID)	[10]	CO4	L2
/	Explain Formal Risk analysis structures (OCTAVE & FAIR)  OR	[1]		
8	Explain Purdue model for control hierarchy.	[10]	CO4	L2
	PART V			
9	With a neat diagram wireless temperature monitoring system using Raspberry PI.	[10]	CO5	L2
	OR			
10	Explain the advantages of IP as a network layer.	[10]	CO3	L2

5	PART III  Describe the different components of FNF with a neat diagram			
	OR		CO4	L2
6	Explain tunneling legacy SCADA over IP networks and SCADA protocol transition with a neat diagram.	[10]	CO3	L2
7	PART IV Explain Formal Risk analysis structures (OCTAVE & FAIR)	[10]	CO4	L2
8	OR Explain Purdue model for control hierarchy.	[10]	CO4	L2
	PART V			
9	With a neat diagram wireless temperature monitoring system using Raspberry PI.	[10]	CO5	L2
10	OR	[10]	CO2	1.2
10	Explain the advantages of IP as a network layer.	[10]	CO3	L2

## **Scheme of Evaluation**



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Question	Description	Marks	Max
		Distribution	Mar
			ks
1	Explain Edge analytics in detail with a neat diagram		10
	Edge core analytics components with Explanation	6	
	Diagram	4	
2	With a neat diagram explain 6LoWPAN protocol header compression		10
	and fragmentation.	5	
	6LoWPAN protocol header compression	5	
	fragmentation		
3	Explain in detail the smart city IOT layer architecture.		10
	Explanation	7	
	Diagram	3	
4	Describe MQTT framework message format in detail.		10
	MQTT Explanation	4	
	Framework message format	4	
_		2	
5	Describe the different components of FNF with a neat diagram	_	10
	Component's explanation	7	10
	Diagram	3	
6	Explain tunneling legacy SCADA over IP networks and SCADA		10
	protocol transition with a neat diagram.	10	
	Explanation with 3 scenarios		
7	Explain Formal Risk analysis structures (OCTAVE & FAIR)		10
	Octave allergo steps and phases	7	
	FAIR explanation	3	
	Explain Purdue model for control hierarchy.		10
	Explanation	6	
8	diagram	4	
9	With a neat diagram wireless temperature monitoring system using		10
	Raspberry PI.		
	DHT11 sensor	2	
	Components	3	
	Explanation with code	5	
	Explain the advantages of IP as a network layer.		10
10	The key advantages of the IP for the Internet of Things:	5*2	
	Open and standards-based		
	Versatile		
		ı	1

• Ubiquitous	
• Scalable	
Manageable and highly secure	
Stable and resilient	
Consumers' market adoption	
The innovation factors	