Paper / Subject Code: N20175 / Internet of Things

15/05/2025 MCA SEM-II (NEP 2020) IOT QP CODE: 10081550

(2 Hours) Total Marks: 50

Note:	 Question number Q1 is compulsory Attempt any two questions out of Q2 to Q5 		Marks	Course Outcome	Bloom's Level
Q1			3/ 4	F E	67 E
Q.	a.	Define IoT and mention any three key characteristics that differentiate it from traditional M2M communication.	[05]	4 C	Level 1 Remembering
	b.	Analyze the significance of safety, privacy, trust, and security models in IoT architecture.	[05]	2	Level 4 – Analyzing
	c.	Explain the ZigBee architecture in detail.	[05]	3	Level 2 – Understanding
	d.	Differentiate between Web of Things (WoT) and Internet of Things (IoT).	[05]	5	Level 2 – Understanding
			137		
Q2	a.	Discuss the physical and logical design of IoT. Illustrate with suitable examples.	[08]		Level 4 □ Analyzing
	b.	Evaluate the role of the IoT Reference Architecture. How do the functional, information, and deployment views contribute to the effective implementation of IoT systems?	[07]	2,00	Level 5 – Evaluating
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Q3	a.	Analyze the various vulnerabilities in IoT systems and discuss how threat modeling can help mitigate risks in a smart home application.	[08]	3	Level 4 – Analyzing
) Ž	b .	Explain the purpose of IoT platform design methodology and list its key components.	[07]	4	Level 2 – Understanding
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Q4	a.of	Analyze the architecture of the Cloud of Things. How does it facilitate mobile cloud computing in an IoT environment?	[08]	5	Level 4 □ Analyzing
O KATES	b.	Analyze the role of predictive maintenance in Industrial IoT (IIoT) and how it helps in improving plant efficiency and worker safety.	[07]	6	Level 4 – Analyzing
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Q5	a.	Explain how smart lighting and smart appliances contribute to a home automation system.	[08]	6	Level 2 – Understanding
	b.	Explain the different IoT levels (Level 1 to Level 3) and illustrate how each level contributes to the overall functioning of an IoT system.	[07]	1	Level 3 – Applying
