Paper / Subject Code: 42572 / Internet of Things

1T01137 - B.E.(Electronics Engineering)(SEM-VII)(Choice Base Credit Grading System) (R-20) (C Scheme) / 42572 - Internet of Things QP CODE: 10016106 DATE: 12/12/2022

Duration: 3hrs Max Marks: 80

		(2) Attempt any three questions out of the remaining five.	
		(3) All questions carry equal marks.(4) Assume suitable data, if required and state it clearly.	
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1		Attempt any FOUR	[20]
	A	List the various Communication models in IoT? Explain the communication model that is implemented in CoAP.	[5]
	В	Explain the following REST Architectural Constraints: Stateless Constraint and Cacheable Constraint	[5]
	C	List and Draw the Security Functional Group Components in IoT reference architecture	[5]
	D	List the various components of any IoT System. Explain the role of controller service	[5]
		and Web Service with reference to the components of IoT System.	
	Ε	Examine how the following electrical parameters can be used as a part of sensing	[5]
Y		Technology: a) Capacitance and b) reverse saturation current of PN Junction	
2	A	Compare and Contrast the various Phases of Analytics	[10]
	В	Contrast the various Data Categorizations for storage in IoT Systems. Discuss the	[10]
		various Cloud deployment models available.	
3	a	List the various features of CoAP. Explain how PSK provides security measures in	[10]
		relation to DTLS in CoAP	
	ъ	Compare and contrast CoAP and HTTP	[10]
4	a	Draw the information model for any Weather Monitoring IoT System. Detail any two Entities or Objects or Concepts defined in the domain model specification	[10]
	b	What do you understand by the term 'Functional View Specification'? Detail the any	[10]
		two Functional Groups with relevant example.	
5	a	Compare and Contrast the various Communication APIs	[10]
	b	Discuss the purpose of Online Analytical Processing in Analytics with relevant examples.	[10]
6	a	What do you mean by Pub-Sub model? Detail the operation flow of MQTT protocol.	[10]
3	b	Draw the Layered Attacker Model and possible attacks in IoT/M2M	[10]

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N.B.: (1) Question No 1 is Compulsory.