MAKE-UP EXAM

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BETCK205H/BETCKH205

Second Semester B.E. B.Tech Degree Examination, Nov./Dec. 2023
Introduction to Internet of Things (IoT)

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Name the four broad categories of computer network based or reachability and explain them briefly.	8	L1	CO1
	b.	Differentiate between IoT and M2M.	6	L1	CO1
	c.	With a neat diagram, explain the network communication between two hosts following the OSI model.	6	L2	CO1
		OR			
Q.2	a.	What is IoT? Write the characteristics of IoT system.	5	L2	CO1
	b.	With neat diagram explain the interdependency technology for IoT planes.	10	L2	CO1
	c.	With a neat diagram, explain internet protocol suite.	5	L2	CO1
		Module – 2			
Q.3	a.	Outline the basic differences between transducers sensor and actuators.	6	L2	CO2
	b.	Explain the types of actuators.	8	L2	CO2
	c.	Define sensor and explain the characteristics of sensor.	6	L2	CO2
		OR			
Q.4	a.	Compare the common commercially available sensors used for IoT – based applications.	6	L2	CO2
	b.	Outline a simple actuation mechanism.	6	L2	CO2
	c.	Explain four common characteristics of actuators used for selection.	8	L2	CO2
		Module – 3			
Q.5	a.	List and explain common data types in IoT applications.	5	L2	CO3
	b.	With a neat diagram, explain offsite processing topology	10	L2	CO3
	c.	Write short notes on offloading considerations.	5	L1	CO3
		OR			
Q.6	a.	With a neat diagram, explain on-site processing topology.	5	L2	CO3
	b.	Explain the IoT device design and selection considerations.	8	L2	CO3
	c.	Write short notes on offload locations and offload decision making.	7	L1	CO3
		Module – 4			
Q.7	a.	Define virtualization. Discuss advantages of virtualization.	8	L1	CO4
	b.	Summarize the case study related to smart irrigation management system.	5	L2	CO4
	c.	With a help of neat diagrams explain the cloud models.	7	L2	CO4
		OR			
Q.8	a.	Explain the architecture of a sensor – cloud platform with a neat diagram.	8	L2	CO4
	b.	Explain the features of cloud sim.	4	L2	CO4
	c.	With a neat diagram, describe the difference between network computing and cloud computing.	8	L2	CO4
		Module – 5			
Q.9	a.	With a neat diagram, explain the architecture of vehicular IoT.	7	L2	CO5
	b.	Define machine learning. Explain advantages of machine learning.	6	L1	CO5
	c.	Write a note on advantages to risk of health care IoT.	7	L1	CO5
		OR			
Q.10	a.	Explain for framework for intelligent public safety in vehicular environments (for-FISVER) with a block diagram.	10	L2	CO5
	b.	Explain hardware components and front end design features of abmusens → Health care IoT case study.	10	L2	CO5

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