

MAKE-UP EXAM

BETCK105H/BETCKH105



USN

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

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.	Explain Classification of computer networks based on the following parameters, with a neat diagrams. i) Connection type ii) Physical topology iii) Network reachability.	10	L2	CO1
	b.	With a neat diagram, explain ISO-OSI network model and its layers.	10	L2	CO2
OR					
Q.2	a.	In detail, explain the evolution of IOT.	10	L2	CO1
	b.	With a neat diagram, explain a typical IOT network ecosystem, highlighting the various networking components.	10	L2	CO2
Module - 2					
Q.3	a.	Explain various sensor classifications based on: i) Power requirements ii) Sensor output iii) Property to be measured.	10	L2	CO2
	b.	Explain the major considerations influencing the choice of sensors in IOT based sensing solutions.	6	L2	CO2
	c.	Explain different sensor characteristics.	4	L2	CO2
OR					
Q.4	a.	Define actuator. Briefly outline the actuation mechanism.	7	L1	CO1
	b.	Explain different classes of actuator types with suitable examples.	7	L2	CO3
	c.	Explain different actuator characteristics.	6	L2	CO2
Module - 3					
Q.5	a.	Explain different types of data to be procured based on urgency of processing with examples.	6	L2	CO2
	b.	With a neat diagrams and examples, explain two large topologies used for processing solutions.	10	L2	CO2
	c.	Differentiate between structured and unstructured data.	4	L2	CO1

OR

Q.6	a.	Explain important considerations for selecting processor for designing a sensor node.	8	L2	CO3
	b.	Explain different classifications of offload locations.	6	L2	CO1
	c.	Explain different parameters for offloading considerations.	6	L2	CO1

Module - 4

Q.7	a.	In detail, Explain different cloud models with examples.	10	L2	CO2
	b.	What is SLA? Explain its importance and different metrics used to construct SLA.	6	L2	CO1
	c.	List any four advantages virtualization in cloud computing.	4	L1	CO1

OR

Q.8	a.	Explain different components of an agricultural IOT.	6	L2	CO2
	b.	Discuss the case study of smart Irrigation management system.	8	L2	CO1
	c.	List out the features of following cloud simulators. i) Cloud Sim ii) Cloud Analyst.	6	L1	CO2

Module - 5

Q.9	a.	Explain the architecture of a vehicular IOT.	6	L2	CO2
	b.	Discuss the advantages and risks of a health care IOT.	8	L2	CO2
	c.	Define machine learning. Also discuss the advantages of machine learning.	6	L2	CO1

OR

Q.10	a.	Describe the architecture of Ambusens system and its hardware details.	8	L2	CO2
	b.	Explain different types of machine learning approaches.	6	L2	CO2
	c.	Discuss the different components of health care IOT.	6	L2	CO2

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