CBCS SCHEME

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BETCK105H

First Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
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.	Classify network types based on physical topologies and connection types with schematic diagrams.	10	L2	CO1
	b.	Explain with a suitable diagram IoT planes with respect to complex interdependence of techniques.	10	L2	CO1
		OR			
Q.2	a.	Differentiate between point to point and multipoint connection type.	5	L1	CO1
	b.	Write short notes on : i. IoT versus M2M ii. IoT versus CPS.	5	L6	CO1
	c.	With the help of neat block diagram, explain ISO-OSI layered network model.	10	L1	CO1
		Module – 2			
Q.3	a.	With a neat block diagram, explain the functional blocks of a typical sensor node in IoT.	10	L2	CO2
	b.	Explain sensor characteristics and actuator characteristics.	10	L2	CO2
		OR			
Q.4	a.	Explain different sensors based on sensing environment and physical sensors.	10	L2	CO2
	b.	Explain briefly the actuator types.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain structured and unstructured data. Outline various data generating and storage sources with a block schematic.	10	L2	CO3
	b.	Explain event detection using an offsite remote processing topology with a block diagram.	10	L2	CO3

		OR			
Q.6	**a.**	Explain : i. Importance of processing in IoT ii. Offloading considerations.	**10**	**L2**	**CO3**
	b.	Explain the data offloading strategies offload location and offload decision making.	**10**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Define Virtualization. Briefly explain advantages of virtualization from end-user and service provider point of view.	**10**	**L1**	**CO4**
	b.	With neat diagram, explain smart irrigation management system.	**10**	**L2**	**CO4**
		OR			
Q.8	**a.**	Define Cloud Computing. Classify the deployment model of cloud with relevant explanation.	**5**	**L1**	**CO4**
	b.	Explain the importance and metrics of Service-Level Agreement (SLA) in cloud computing.	**5**	**L2**	**CO4**
	c.	With a neat diagram, briefly explain the architecture of leaf area index system.	**10**	**L2**	**CO4**
		Module – 5			
Q.9	**a.**	With a diagram, explain architecture of Fog-FISVER.	**10**	**L2**	**CO5**
	b.	Briefly explain : i. Advantages of healthcare IoT ii. Risk in healthcare IoT	**10**	**L2**	**CO5**
		OR			
Q.10	**a.**	Explain the layered architecture of Ambusens.	**10**	**L2**	**CO5**
	b.	Explain advantages of ML and challenges in ML.	**10**	**L2**	**CO5**

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