CAMBRIDGE INSTITUTE OF TECHNOLOGY

K.R.PURAM, BENGALURU - 560 036.

Department of Electronics and Communication Engineering

Subject name: Introduction to IOT **Semester:** I

Subject code: BETCK105H **Section:** P1 to P6

QUESTION BANK FOR MAIN EXAMS

Sl. No.	QUESTIONS	Cos	RBT Levels	Marks
	MODULE 1			
1	Explain broad categories of computer networks based on network reachability. **OR** Explain four broad categories of network based on reachability	CO1	L2	06M
2	Explain various networking components of IoT.	CO1	L2	06M
3	Differentiate between IoT versus M2M, IoT versus WOP and IoT versus CPS	CO1	L2	08M
4	Explain communication between two hosts following TCP/IP suite with neat block diagram.	CO1	L2	07M
5	Discuss different IoT planes along with various enabling technologies of IoT	CO1	L2	06M
6	Classify network types based on physical topology with example. **OR** Briefly explain various network topologies with suitable diagram	CO1	L2	08M
7	What is IoT? Write the characteristics of IoT system.	CO1	L1	06M
8	Explain with a suitable diagram IoT planes with respect to complex interdependence of technologies.	CO1	L2	06M
9	Differentiate between OSI model and TCP/IP model.	CO1	L2	08M
10	With a neat diagram, explain the network communication between two hosts following the OSI model	CO1	L2	06M
11	Discuss the highlights of the seven layers of the OSI stack.	CO1	L1	06M
12	Explain the various technological interdependencies of IoT with other domains and networking paradigms.	CO1	L2	08M
	MODULE 2			
13	Outline simple sensing operation in IoT node with its functional blocks	CO2	L2	08M
14	Explain different categories of sensors based on sensing environment.	CO2	L2	06M
15	What are sensors? Give six applications of sensors. What are different types of sensing.	CO2	L1	04M
16	Outline basic difference between transduce, sensor and an actuator.	CO2	L2	05M
17	Discuss the different types of sensorial deviations.	CO2	L2	10M
18	What are the major factors influence the choice of sensors in IoT-based sensing solutions	CO2	L2	10M
19	Define transducer and characteristics of the sensors.	CO2	L1	05M

20	What is an actuator? Explain in detail different types of actuators.	CO2	L2	10M
21	Narrate the characteristics of the actuators.	CO2	L2	08M
	MOCULE 3			
22	Explain with a neat diagram of offsite processing topology.	CO3	L2	10M
23	Explain IoT device selection consideration.	CO3	L2	10M
24	Explain with diagram the different layers and its communication in processing offloading.	CO3	L2	10M
25	Explain with a neat diagram of onsite processing topology.	CO3	L2	10M
26	What are the different data formats found in IoT network traffic streams?	CO3	L2	10M
27	Differentiate between structured and unstructured data.	CO3	L2	10M
28	Explain in brief the factors to be considered while deciding on the data offload location.	CO3	L2	10M
29	What are the typical data offload locations available in the context of IoT?	CO3	L2	10M
30	List the various decision-making approaches chosen for offloading data in IoT. Explain each approach	CO3	L2	10M
31	What are the critical factors to be considered during the design of IoT devices?	CO3	L2	10M
	MODULE 4			
32	Define Virtualization. Explain its advantages from end user and service provider point of view, and types of virtualizations.	CO4	L2	10M
33	Explain with a neat diagram of Architecture of a sensor-cloud platform.	CO4	L2	10M
34	Summarize the case study related to Smart irrigation management system.	CO4	L2	10M
35	Explain with a neat diagram of Components of an agricultural IoT.	CO4	L2	10M
36	Differentiate among different cloud deployment models.	CO4	L2	10M
37	Explain the features of CloudSim, Cloud Analyst and GreenCloud.	CO4	L2	10M
38	Explain the Architecture of Agricultural IoT with a neat sketch .	CO4	L2	10M
39	With a example, explain how software-as-a service is different from platform-as-a-service?	CO4	L2	10M
40	What is an SLA? Why it is important in cloud computing?	CO4	L2	10M
41	What is an Amazon Machine Image? Differentiate sensor-cloud and virtual sensor network(VSN)			
	MODULE 5			
42	Explain the Architecture of vehicular IoT with a neat sketch .	CO5	L2	10M
43	Explain the different types of Machine learning with neat block diagram.	CO5	L2	10M
44	Explain with a neat diagram of Architecture of healthcare IoT.	CO5	L2	10M
45	Define Machine learning and explain the advantages of ML.	CO5	L2	10M
46	Explain different types of machines learning.	CO5	L2	10M
47	Explain advantages and risk factor in healthcare IoT.	CO5	L2	10M
48	Explain smart transportation system which help in crime assistance.	CO5	L2	10M
49	What is RSU. Explain its significance in vehicular IoT.	CO5	L2	10M
50	Explain smart transportation system which help in crime assistance.	CO5	L2	10M