

K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22

(Autonomous College Affiliated to University of Mumbai)

End Semester Exam

Nov – Dec 2021

(B.Tech) Program: Information Technology

Examination: LY Semester: VII

Course Code: _IUITC702_ and Course Name: _Internet of Everything_

Duration: 03 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Discuss different objects in IOT	02	CO1	U
ii)	Describe different components of RFID system	02	CO2	U
iii)	List different hardware issues of RFID	02	CO2	U
iv)	List different application of active tag	02	CO3	U
v)	List advantage of MQTT protocol	02	CO4	U
vi)	Define mobility management	02	CO4	U
vii)	Explain different component of Hadoop.	02	CO5	U
viii)	Discuss the importance of data analysis in the internet of Everything.	02	CO6	U

Q.2	Solve any four questions out of six.	16		
i)	Draw RFID middleware architecture and discuss different components.	04	CO2	U
ii)	Explain identifiers in the IOT.	04	CO1	U
iii)	Discuss the use RFID in product safety application.	04	CO3	A
iv)	Compare different protocols in wireless sensor networks.	04	CO4	An
v)	Differentiate between link layer and network layer handover process.	04	CO5	An
vi)	Sketch spark ecosystem architecture & discuss different components.	04	CO6	A
Q.3	Solve any two questions out of three.	16		
i)	Describe use of RFID in logistics & supply chain management.	08	CO1, CO3	A
ii)	Compare different localization technique and by assuming suitable example demonstrate Camera Based Localization.	08	CO4	A
iii)	Explain different data dissemination method in wireless sensor network with suitable diagram.	08	CO5	U
Q.4	Solve any two questions out of three.	16		
i)	A slotted ALOHA network transmits 200bits frames on a shared channel of 200 kbps. What is the throughput if the system produces: <ul style="list-style-type: none"> • 250 frames per second • 500 frames per second • 1000 frames per second 	08	CO2	A
ii)	Explain different Energy and data Transmission modes in RFID.	08	CO2, CO3	U
iii)	Describe with neat diagram HDFS Architecture and Hadoop MapReduce Architecture.	08	CO6	U