I.T.

Date : 06-12-2022

K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)
End Semester Exam
Nov – Dec 2022-23
(B. Tech) Program: Information Technology
Examination: LY Semester: VII

Course Code: ITC702 **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)	List the key difference between Data Analytics and Business Analysis.	02	CO1	4
ii)	Define Fog computing with example.	02	CO1	1
iii)	Define NFC with its applications	02	CO2	1
iv)	What are various types of IoT patterns in Edge Computing	02	CO3	1
v)	Describe Diagnostic analytics on IoT Data	02	CO4	2
vi)	List the steps of process flow in IoT Analytics.	02	CO4	1
vii)	List the key application areas of IIOT	02	CO5	1
viii)	Explain attacks on availability.	02	CO6	2
Q.2	**Solve any four questions out of six.**	16		
i)	Compare Operational Technology with Information Technology	04	CO1	4
ii)	Analyse and explain the classes of LoRa WAN.	04	CO2	4

iii)	Compare the MQTT and MQTT-SN.	04	CO3	4
iv)	Describe common mistakes when designing visuals in Data Analytics.	04	CO4	2
v)	Justify the use of various sensors and protocols in weather monitoring system.	04	CO5	5
vi)	Analyse flooding by attackers and flooding by legitimate (flash crowds).	04	CO6	4
Q.3	**Solve any two questions out of three.**	16		
i)	Explain the IOT world forum (IOTWF) standardized architecture and justify its seven layers.	08	CO1	2,5
ii)	Describe data lake and data retention strategy in detail.	08	CO4	2
iii)	Evaluate and design smart agriculture and justify the sensors used.	08	CO5	5
Q.4	**Solve any two questions out of three.**	16		
i)	Analyse the 6LoWPAN application areas and relate with LoWPAN protocol stack in detail	08	CO2	4
ii)	Compare the COAP protocol with STOMP, describe the use of COAP message format and security aspects.	08	CO3	4
iii)	Describe the possible attacks based on architecture and analyse the types of spoof attack.	08	CO6	2,4