Reg. No. : | | | | | | | | | | |

Question Paper Code: 99426

B.E./B.Tech. DEGREE EXAMINATION, NOV 2022

Elective

Electronics and communication Engineering

19UEC926- Sensors for Iot

(Regulations 2019)

Duration: Three hours Maximum: 100 Marks

Answer All Questions

PART A - (10x 2 = 20 Marks)

1.	Differentiate between analog and digital sensors.	CO1- U
2.	Differentiate between hydraulic and pneumatic actuators with examples.	CO1- U
3.	Differentiate between LoRa and NB-IoT.	CO3- U
4.	Depending on the urgency of data processing, how are IoT data classified?	CO3- U
5.	Provide a few examples of Capacitive and Magnetic Sensing.	CO4- U
6.	Explain the use of basic sensing principles in RFID technology.	CO4- U
7.	Categorize two types of environmental sensors	CO5- U
8.	Explain On-road Sensors	CO5- U
9.	Explain the purpose of Rocker Switch	CO2- U
10.	Mention the properties of ceiling fan in packet tracer	CO2- U

PART – B (5 x 16= 80 Marks)

11.	(a)	Explain the various types of actuators that can be used in IoT.	CO1-U	(16)
		Or		
	(b)	Explain the characteristics of Actuators and Sensors that can be implemented in IoT for diverse Applications	CO1-U	(16)
12.	(a)	Select and Identify the various processing topologies used in IoT and SIoT by applying the the various considerations in sensor networks	CO3-App	(16)
		Or		

	(b)	Explain the processing method that can be used in development of densely deployable sending tasks	CO3-App	(16)
13.	(a)	Analyze the role of management planes that are part of the WSN Protocol stack	CO1-U	(16)
		Or		
	(b)	Analyze the role of RFID technology in WSNs	CO1-U	(16)
14.	(a)	Create and evaluate a useful wearable sensor system	CO5-E	(16)
		Or		
	(b)	Design a research roadmap to implement the wearable in daily life.	CO5-E	(16)
15.	(a)	Design a scenario in tracer environment to control fan speed through laptop or mobile devices and sensed temperature should be displayed in mobile phone or laptop	CO6- C	(16)
		Or		
	(b)	Create a smart room to connect smart things and sensors that directly connected with MCUs(With Gateways)	CO6- C	(16)