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

Question Paper Code: 95Q25

Ph.D. COURSE WORK EXAMINATION, MAY 2022

Elective

Computer Science and Engineering

19PCS525 - SMART SENSORS AND INTERNET OF THINGS

(Regulation 2019)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1.	(a)	Explain in detail about IoT based weather monitoring system	CO1- U	(20)
		Or		
	(b)	Explain in detail about the various smart technologies used for VSN based air monitoring system	CO1- U	(20)
2.	(a)	Why we need chemical sensors? Write the types of chemical sensors and its uses. Also explain the working principle of chemical sensor.	CO2- U	(20)
		Or		
	(b)	Explain in detail about the concepts humidity detection sensors.	CO2- U	(20)
3.	(a)	Explain in detail about the various characteristics of sensors.	CO3- U	(20)
		Or		
	(b)	Explain in detail about the fractional order impedance sensor for measuring the quality of drinking water	CO3- U	(20)
4.	(a)	Discuss about the smart sensors and its features. Also explain the evolution of smart sensors.	CO4- U	(20)
		Or		
	(b)	Explain in detail about the general architecture of smart sensors with neat diagram.	CO4- U	(20)

5.	(a)	Explain in detail about the usefulness of silicon technology in smart sensor.	CO5- U	(20)
		Or		
	(b)	Draw the block diagram for a typical multi-sensor interface chip and explain. Also write the guidelines for selection of the fabrication technology of multi-sensor interface chips	CO5- U	(20)