| Name:

Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Wireless Sensor Networks and IOT Standards	Semester: VI
Program: B.Tech CSE spl in AIML	Time : 03 hrs.
Course Code: CSIS 3001P	Max. Marks: 100

Instructions: Kindly stick to the question and support every answer with proper explanation.

	SECTION A (5Qx4M=20Marks)		
S. No.		Marks	CO
Q 1	State various operational challenges of Wireless Sensor Network	4	CO1
Q 2	List different types of sensors that can be deployed in WSN	4	CO1
Q 3	Define MOTE. State the evolution of Mote.	4	CO1
Q 4	Explain the working of Zebranet Project	4	CO4
Q 5	Describe Modulation and its role in WSN	4	CO2
	SECTION B (4Qx10M= 40 Marks)		
Q 6	Demonstrate the Working of 802.11 DCF with detailed Job-Time diagram (Timing Relationship)	10	CO2
Q 7	"Large WSN network working with mobile node need a mean of synchronization among each other". Elucidate the role and working of satellite communication for time synchronization.	10	CO1
Q 8	Design WSN for an IOT based Smart Agriculture system.	10	C04
Q 9	"Routing protocols plays an important role in communicating". Interpret the working of Geographical routing in WSN **OR** "Routing protocols plays an important role in communicating". Interpret the working of SOP in WSN	10	C03
	SECTION-C (2Qx20M=40 Marks)		
Q 10	Identify the various different characteristic of MAC protocols designed for WSN. Elucidate the Contention based MAC protocols with proper working flow of protocol.	20	CO2
Q 11	Write detail note to appraise the role of the following protocols in WSN:	8+7+5	CO3

	1. MQTT, 2. AMQP 3. IEEE 802.15.4 **OR** Write detail note to appraise the role of the following protocols in WSN: 1. COAP 2. XMPP 3. IEEE 802.16		