U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester: VI**
Branch: Electronics and Communication Engineering **Duration: 3 hrs.**
Course Code: 22EC6PCECS **Max Marks: 100**
Course: Electronics and Communication for Sustainable Development

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

			UNIT – I	CO	PO	Marks
1	a)	Discuss on the integration of UAV with WSN for implementation of water and crop health management		CO 1	PO7	10
	b)	Justify how technology can be beneficial in agriculture? Indicate methods to improve agriculture technology in Indian scenario.		CO 1	PO7	10
		OR				
2	a)	Illustrate the hierarchy of sensor classifications and identify appropriate sensors for a smart agriculture system		CO 1	PO7	10
	b)	Illustrate the need of smart agriculture and identify its objectives.		CO 1	PO7	10
		UNIT – II				
3	a)	Analyze and explain the CASAS SHiB design for home automation with a relevant diagram. Discuss on its usability.		CO2	PO1	10
	b)	Justify how reconfigurable Intelligent space can overcome conventional space problem.		CO2	PO1	10
		OR				
4	a)	Analyze MLE localization algorithm with negative constraints.		CO2	PO1	10
	b)	Analyze how wireless sensor network can be deployed in environment monitoring with relevant examples.		CO2	PO1	10
		UNIT - III				
5	a)	Justify the need to migrate towards eco sustainability in buildings		CO2	PO1	10
	b)	Discuss dynamic pricing and smart energy use in comparison to flat rates.		CO 1	PO7	10
		OR				
6	a)	With a neat block diagram describe the generic architecture of the MobiHealth BAN system.		CO2	PO1	10

		b)	Explain the logical layers of an architecture for building energy management	***CO*** 1	***PO7***	**10**
			UNIT – IV			
	7	a)	Explain smart homecare applications as applied to telemedicine.	***CO*** 1	***PO7***	**10**
		b)	Discuss the scope of Body sensor network applications.	***CO*** 1	***PO7***	**10**
			OR			
	8	a)	Explain the utility of WSN for emergency applications with a dataflow diagram between patient and medical services.	***CO*** 1	***PO7***	**10**
		b)	Discuss about the various challenges faced by Body sensor networks in clinical and hospital structures.	***CO*** 1	***PO7***	**10**
			UNIT – V			
	9	a)	How are RFID applications classified? Give relevant examples.	***CO*** 1	***PO7***	**10**
		b)	Analyze on the social sensor networks for transportation management in smart cities.	***CO2***	***PO1***	**10**
			OR			
	10	a)	Illustrate Customizing a Vehicle for Multiple Drivers and individual authority by Applying RFID Techniques as an example of automotive RFID applications	***CO*** 1	***PO7***	**10**
		b)	Discuss any two innovative ideas of automotive RFID applications	***CO2***	***PO1***	**10**

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