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

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Branch: Electronics and Communication Engineering

Course Code: 16EC8DCECS

Course: Electronics and Communication for Sustainable Development

Semester: 8th

Duration: 3 hrs.

Max Marks: 100

Date: 19.09.2023

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

UNIT - I

- 1 a) Illustrate a WSN for smart agriculture and briefly explain the objectives of a greenhouse monitoring system. **10**
b) Analyze various characteristics of WSN to implement crop health management system. **10**

UNIT - II

- 2 a) Illustrate the electrical structure of R+iSpace and mobile module for flexible smart space. **10**
b) Analyze and explain the CASAS HiB design and discuss on its usability. **10**

OR

- 3 a) Illustrate intelligent space. Mention the problems identified in earlier systems. What are the necessary conditions a new system must have? **10**
b) Discuss on different approaches of activity recognition to scale the capabilities of smart environment **10**

UNIT - III

- 4 a) Illustrate the significance of smart grid and smart energy use to reach the goal of low carbon economies. **10**
b) Explain the utility of fiber wireless sensor network for smart energy use with the architecture diagram **10**

OR

- 5 a) Illustrate significance of Body Area Networks for Smart Healthcare. **10**
b) Illustrate how the Personal lighting management system reduces energy waste while improving the comfort of the users. **10**

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 -IV

- 6 a) Explain how Telemedical system architecture can be utilized for healthcare application. **10**
- b) Discuss about the various challenges faced by Body sensor networks in clinical and hospital structures. **10**

UNIT -IV

- 7 a) Illustrate Customizing a Vehicle for Multiple Drivers and individual authority by Applying RFID Techniques as an example of automotive RFID application. **10**
- b) Briefly discuss on the social sensor networks for transportation management in smart cities. **10**

SUPPLEMENTARY EXAMS 2023