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Question Paper Code:6213219

M.C.A. DEGREE EXAMINATIONS, NOV/ DEC 2024
Third Semester
Master of Computer Application
P23CAO14 – IoT FOR SMART SYSTEM
(Regulation 2023)

Time: Three Hours Maximum: 100 Marks

Answer ALL questions

PART – A (10 x 2 = 20 Marks)

1. Define Sensor and Actuators.

2. List any two Applications of IoT.

3. Interpret the constrained nodes of Internet of Things.

4. Outline the principle of Bluetooth low energy.

5. What do you mean by NFC beacons?

6. Recall the phenomenon of ZigBee Protocol.

7. State the importance of Interoperability in IoT.

8. Inter the digital and analog input/output pins in Arduino.

9. Show the working of intrusion detection in smart home application.

10. Specify the usage of IOT in electric vehicle changing.

PART – B (5 x 16 = 80 Marks)

11. (a) Explain in detail about the Hardware and software requirements of IoT. (16)

(OR)

(b) Demonstrate the various smart Applications of IoT. (16)

12. (a) Illustrate the single node architecture of a sensor network. (16)

(OR)

(b) Summarize and explain any 5 IoT Standards for implementing the real time application. (16)

13. (a) Outline the usage of SCADA and RFID protocols and show the areas where it is implemented. (16)

(OR)

(b) Enumerate the impact of the 6LOWPAN wireless technology in IoT. (16)

14. (a) Narrate in the use of Big Data analytics in the implementation of IoT systems. (16)

(OR)

(b) Design the steps for developing an smart IOT system with Raspberry Pi. (16)

15. (a) Enumerate the role of IOT in developing the cities. (16)

(OR)

(b) Organize the IoT's Agricultural Application with the support of smart irrigation system. (16)

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