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Question Paper Code: U9473

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2024

Open elective

Civil Engineering

21UEC972- IOT CONCEPTS AND APPLICATIONS

(Common to All branches)

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. The IPV6 has a _____ notation for addressing. CO1- U
(a) Dotted decimals (b) Hexadecimal (c) Both (a) and (b) (d) None of the above
2. UDP and TCP are called ----- protocols CO1- U
(a) Network (b) Transport (c) Session (d) Application
3. _____ are the components of the MQTT protocol. CO1- U
(a) Subscribers (b) Brokers (c) Publishers (d) All of the above
4. Gateway software must be smart enough so that it can handle_____ CO1- U
(a) Sensors (b) Logging (c) Message (d) GPS
5. What is the standard form of RREQs? CO1- U
(a) Route Requests (b) Route Reply Requests
(c) Route Replies (d) None of the above

PART – B (5 x 3= 15 Marks)

6. Describe SCADA and its Applications. CO1- U
7. Enumerate the uses of sensors actuators in IoT CO1- U
8. Differentiate TCP and UDP. CO1- U

9. List out the Importance steps of design process. CO1- U
10. Describe about the emerging trends in IoT Paradigms CO1- U
- PART – C (5 x 16= 80 Marks)
11. (a) Interpret the Construction and Working Principle of Industrial Automation in IoT. CO1- U (16)
- Or
- (b) Describe the Protocol standardization of IoT and give the current status of standardization. CO1- U (16)
12. (a) Demonstrate the advantages of developing IoT-based smart cities and how they will improve our lives. CO2 -App (16)
- Or
- (b) How OSI Models are developed and applied in IoT. CO2 -App (16)
13. (a) Design a weather monitoring IoT system and describe how it is beneficial. CO1-U (16)
- Or
- (b) How Network Securities are developed and managed in IoT Applications. Illustrate with Specific Cases CO1- U (16)
14. (a) Provide an IoT solution for smart light with design. CO3- App (16)
- Or
- (b) How GUI Programming developed and applied in IoT systems CO3- App (16)
15. (a) Build and describe the implementation method for early flood detection applying IoT protocols. CO2- App (16)
- Or
- (b) Construct an approach to execute traffic monitoring using IoT protocols and describe it. CO2- App (16)