P2305

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S.E. (Artificial Intelligence and Data Science) (Theory)
INTERNET OF THINGS
(2019 Pattern) (Semester - IV) (217529)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates :

1) *Attempt Questions Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Draw neat and Clean Diagram.*
3) *Assume suitable data, if necessary.*

Q1) a) Illustrate the various IoT communication APIs?   **[8]**

b) With the help of following sectors explain how IoT technology is impacting on the end-to-end value chain in the logistics sector :   **[10]**

    i)   Route generation & scheduling

    ii) Fleet tracking

    iii) Shipment monitoring

    iv) Remote vehicle diagnostics

<div align="center">OR</div>

Q2) a) Demonstrate the IoT component with a neat diagram.   **[9]**

b) What is Piggybacking? What is the necessity of security and privacy of IoT?   **[9]**

Q3) a) Draw and Explain WSN architecture?   **[9]**

b) Explain any four IoT network protocols?   **[8]**

<div align="center">OR</div>

Q4) a) Explain Machine to Machine Architecture?   **[9]**

b) Explain any four applications of RFID?   **[8]**

<div align="right">***P.T.O.***</div>

Q5) a) Explain IoT Information model specification. **[9]**

b) Explain Various IoT sim card Technologies **[9]**

OR

Q6) a) What are the criterias for selection of controllers in Embedded Products? **[9]**

b) What are different security parameters considered while designing any IoT system? **[9]**

Q7) a) Discuss various IoT applications in the Agriculture domain. **[6]**

b) What is the E-Healthcare system? How IoT is important in E-Health Monitoring application. **[6]**

c) Discuss various IoT applications in Automotive applications. **[5]**

OR

Q8) a) Write a short note on IoT vertical Applications. **[6]**

b) Explain Voice Application for IoT Device. **[6]**

c) Explain Vehicle to Vehicle communication. **[5]**

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