

09/01/2023

Reg. No.

Question Paper Code

11592

B.E./B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022

Fifth Semester

Artificial Intelligence and Data Science

20AIPC504 - IOT AND SENSORS TECHNOLOGIES

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

Answer ALL Questions

PART - A (10 × 2 = 20 Marks)

- | | <i>Marks,
K-Level, CO</i> |
|---|-------------------------------|
| 1. List out the Features of IOT. | 2,K1,CO1 |
| 2. State the characteristics of IoT. | 2,K1,CO1 |
| 3. Illustrate the different types of communication model. | 2,K2,CO2 |
| 4. Name the features of IoT reference model. | 2,K1,CO2 |
| 5. Define Raspberry PI. | 2,K1,CO3 |
| 6. Differentiate Raspberry with Arduino. | 2,K1,CO3 |
| 7. What is the purpose of actuators in IoT? | 2,K1,CO4 |
| 8. Name the Need For sensors in IoT. | 2,K1,CO4 |
| 9. Which all application that IOT are used? | 2,K1,CO5 |
| 10. List Various IOT tools. | 2,K1,CO5 |

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

- | | |
|--|-----------|
| 11. a) Explain the Physical and Logical design of IoT. | 13,K2,CO1 |
| OR | |
| b) Explain IoT enabling technologies and design methodology of IoT. | 13,K2,CO1 |
| 12. a) Illustrate the IoT reference and deployment architecture. | 13,K2,CO2 |
| OR | |
| b) Illustrate the API based Architecture and SOA based Architecture. | 13,K2,CO2 |
| 13. a) Explain the concepts involved in Raspberry Pi. | 13,K3,CO3 |
| OR | |
| b) Discuss in detail about Arduino with neat sketch. | 13,K3,CO3 |

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

11592

14. a) Illustrate any one real time examples and working principles of sensors and actuators. 13,K3,CO4

OR

b) Illustrate the communication on connecting microcontroller with Bluetooth and USB. 13,K3,CO4

15. a) Explain application of IoT in weather monitoring system. 13,K2,CO5

OR

b) Explain applications of IoT in agriculture. 13,K2,CO5

PART - C (1 × 15 = 15 Marks)

16. a) Explain the impact of IoT for Industry 4.0. 15,K3,CO6

OR

b) Analyze the application of IoT for smart traffic management system. 15,K3,CO6