

20. Outline the significance of IoT security tomography in identifying vulnerabilities. 2 K2 CO5
21. Differentiate between integrity and availability. 2 K2 CO6
22. Why is message integrity critical in IoT networks? 2 K1 CO6

PART - C (6 × 11 = 66 Marks)

Answer ALL Questions

23. a) Write a note on Industrial Internet Reference Architecture (IIRA) and its importance. 11 K2 CO1

OR

- b) What is the Gartner Hype Cycle? Illustrate its phases and explain how it applies to IIoT technologies. 11 K2 CO1

24. a) Define WSN and differentiate WSN from traditional wireless networks and mention the limitations of using IIoT. 11 K2 CO2

OR

- b) Explain the following terms: a) Router, b) Cloud Broker, c) Sensor Node and d) Gateways. 11 K2 CO2

25. a) Explain the importance of actuator selection in industrial automation and describe scenarios for hydraulic, pneumatic, and electric actuators. 11 K2 CO3

OR

- b) Discuss how data from various sensors can be aggregated and analyzed in IIoT for process optimization. 11 K2 CO3

26. a) Organize Wi-Fi and Wi-Fi Direct in terms of connectivity and use cases and explain how Zigbee achieves low power consumption and meshnet working. 11 K3 CO4

OR

- b) Identify and explain the role of AMQP, MQTT, COAP protocols in IIoT. 11 K3 CO4

27. a) Illustrate the importance of message integrity with an example. 11 K3 CO5

OR

- b) Identify the effectiveness of threat analysis techniques for IoT applications. 11 K3 CO5

28. a) Examine the implementation of RBAC model to a smart healthcare IoT system. 11 K4 CO6

OR

- b) Analyze how digital signatures ensure both integrity and non-repudiation. 11 K4 CO6