Reg. No. : | | | | | | | | | | | | |

Question Paper Code: U9472

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

Open Elective

Electronics And Communication Engineering

21UEC972-IOT CONCEPTS AND APPLICATIONS

(Common To All Branches)

(Regulations 2021)

Duration: Three hours Maximum: 100 Marks

Answer All Questions

PART A - (5 x 1 = 5Marks)

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. Gateway provides the connection between _____ and _____. CO1-U

   (a) Controller and device (b) Network and Controller

   (c) Network and Cloud (d) Cloud and Controller

3. Internet domain name and hostname are translated into IP address by_____ CO1-U

   (a) Domain name system (b) Domain name database

   (c) Router (d) Domain information system

4. The _____ layer provides a security based connection: CO1-U

   (a) Transport (b) Application (c) Session (d) Network

5. The XMPP implementation utilizes _____. CO1-U

   (a) Gaming (b) Coap (c) Polling (d) Email

PART – B (5 x 3= 15Marks)

6.	Classify the Role of Wireless Sensor Networks in IoT.		CO1-U
7.	Identify the different Topologies in IoT		CO1-U
8.	Classify IoT Design methodology		CO1-U
9.	Outline the characteristics of Python programming language.		CO1-U
10.	State Which technology is used in IoT based gas leakage system.		CO1-U

PART – C (5 x 16= 80Marks)

11.	(a)	Explain about the IoT characteristics with neat diagram.	CO1-U	(16)
		Or		
	(b)	Summarize domain model specification & draw its structure in IoT system Design.	CO1-U	(16)
12.	(a)	Examine the features and applications of several network infrastructures to determine which is the most beneficial to use. In your response, justify.	CO5-Ana	(16)
		Or		
	(b)	Study how the various network topologies are connected to one another and then clarify each one in terms of performance.	CO5-Ana	(16)
13.	(a)	Inspect how does the Internet of Things (IoT) affect our everyday lives.	CO4-App	(16)
		Or		
	(b)	According to your knowledge, give a suitable example to demonstrate how the MQTT Protocols are different.	CO4-App	(16)
14.	(a)	Provide an IoT solution for smart light and illustrate the design.	CO3-App	(16)
		Or		
	(b)	Give a detailed note on Advantage of GUI in building the IoT systems.	CO3-App	(16)
15.	(a)	Design and develop a IoT based Smart grid and describe how it will benefit our lives.	CO2-App	(16)
		Or		
	(b)	Develop a plan for implementing waste segregation using IoT protocols and Discuss about it.	CO2-App	(16)