**VELAMMAL INSTITUTE OF TECHNOLOGY**

**IA-1/ III Year/ V Sem/ 25.09.2023/ 1hr 45Min / 60 Marks / Set A**

**CS3591-Computer Networks**

**(Common to B.E. Computer Science and Engineering/B.Tech. Information Technology)**

**(Regulation 2021)**

**PART-A (5\*2=10 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1**.** | **Difference** between flow control and congestion control. | 02M | Understand | (CO2) |
| 2**.** | **What** is meant by quality of service? | 02M | Understand | (CO2) |
| 3**.** | **Explain** the drawbacks of IPV4. | 02M | Analyze | (CO3) |
| 4**.** | **Define** Internet Protocol. | 02M | Analyze | (CO3) |
| 5**.** | **What** are ARP and RARP? | 02M | Analyze | (CO3) |

**PART-B (3\*12=36 Marks)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6**.** | a**.** | **Write** about IPv6 in detail. What are its new features and improvements? | | 12M | Analyze | (CO3) | | |
| **Or** | | | | | | | | |
|  | b. | ii) | **Explain** subnetting in detail | 12M | Analyze | (CO3) | |
| 7**.** | a**.** | **What** is packet switching? Explain in detail about different types of packet switching | | 12M | Analyze | (CO3) | | |
| **Or** | | | | | | | | |
|  | b**.** | **Explain** in detail ICMP | | 12M | Analyze | | (CO3) | |
| 8**.** | a**.** | i) | **Explain** ARP with necessary diagram | 6M | Analyze | (CO3) | | |
|  |  | ii) | **Explain** RARP with necessary diagram | 6M | Analyze | (CO3) | | |
| **Or** | | | | | | | | |
|  | b**.** |  | **Write** about IPv4 in detail. | 12M | Analyze | (CO3) | | |
| **PART-C (1\*14=14 Marks)** | | | | | | | | |
| 9**.** | a**.** | **Discuss** the Random Early Detection mechanism and derive the expression for drop probability. | | | | | | |
|  |  |  | | 14M | Understand | (CO2) | | |
| **Or** | | | | | | | | |
|  | b. | **Explain** in detail about TCP congestion avoidance algorithm. | | | | | | |
|  |  |  | | 14M | Understand | (CO2) | | |

**Course Coordinator Module Coordinator HOD/CSE**

**(Deepika D S) (Pratheeba R S) (Dr. Gladis Pushparathi)**

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**PART-A (5\*2=10 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1**.** | **What** is meant by congestion? | 02M | Understand | (CO2) |
| 2**.** | **What** is meant by RED? | 02M | Understand | (CO2) |
| 3**.** | **Explain** Packet Switching and its types. | 02M | Analyze | (CO3) |
| 4**.** | **Define** IPV6 and its advantages. | 02M | Analyze | (CO3) |
| 5**.** | **Define** DHCP. | 02M | Analyze | (CO3) |

**PART-B (3\*12=36 Marks)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6**.** | a**.** | | **Explain** in detail ICMP | | 12M | Analyze | (CO3) | | |
| **Or** | | | | | | | | | |
|  | b**.** | | i) | **Explain** ARP with necessary diagram | 6M | Analyze | (CO3) | | |
|  |  | ii) | | **Explain** RARP with necessary diagram | 6M | Analyze | (CO3) | |
| 7**.** | a**.** | | **Explain** subnetting in detail | | 12M | Analyze | (CO3) | | |
| **Or** | | | | | | | | | |
|  | b**.** | | **What** is packet switching? Explain in detail about different types of packet switching | | 12M | Analyze | | (CO3) | |
| 8**.** | a**.** | |  | **Write** about IPv6 in detail. What are its new features and improvements? | 12M | Analyze | (CO3) | | |
| **Or** | | | | | | | | | |
|  | b**.** | | i) | **Explain about** IPv4 in detail. | 12M | Analyze | (CO3) | | |
| **PART-C (1\*14=14 Marks)** | | | | | | | | | |
| 9**.** | a**.** | | **Explain** in detail about TCP congestion avoidance algorithm. | | | | | | |
|  |  | |  | | 14M | Understand | (CO2) | | |
| **Or** | | | | | | | | | |
|  | b. | | **Explain** in detail about Stream Control Transmission Protocol(SCTP) | | | | | | |
|  |  | |  | | 14M | Understand | (CO2) | | |

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