



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Third Semester

COMPUTER SCIENCE AND ENGINEERING

U18CSR3221: CCNA - Introduction to Networks

COURSE OUTCOMES

CO1: Understand architecture, reference models, protocols, networking elements and various transmission media.

CO2: Understand the addressing schemes and LAN protocol.

CO3: Ability to build simple networks and implement addressing scheme.

CO4: Understand the fundamental network security concepts.

CO5: Ability to configure basic features in a router and switch.

Time: Three Hours

Maximum Marks: 100

**Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)**

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|---|-----|-------------------|
| 1. Define Star Topology. | CO1 | [K ₁] |
| 2. Compare Client-Server Network with Peer-to-Peer Network. | CO1 | [K ₁] |
| 3. What is Transmission Media? Give example. | CO2 | [K ₂] |
| 4. What do you mean by switching? | CO2 | [K ₁] |
| 5. Present an outline of IPv6 addressing. | CO3 | [K ₁] |
| 6. When is ICMP redirect message used? | CO3 | [K ₂] |
| 7. Define DHCP. | CO4 | [K ₁] |
| 8. Mention the different levels in Domain Name Space. | CO4 | [K ₂] |
| 9. Differentiate Authorization and Authentication. | CO5 | [K ₂] |
| 10. What is a MITM attack? | CO5 | [K ₁] |

**Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)**

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|---|----|-----|-------------------|
| 11. With a neat sketch, explain the function of OSI network architecture. | 16 | CO1 | [K ₂] |
| 12. a) Briefly describe the following transmission media.
1. Coaxial Cables 2. Optical Fiber cables | 8 | CO2 | [K ₂] |

	b)	Describe Packet-Switching with an example.	8	CO2	[K ₁]
13.	a)	Explain the error reporting using ICMP protocol. How does Traceroute program makes use of ICMP to determine the name and addresses of the routers between source and destination?	8	CO3	[K ₃]
	b)	Explain the function of ARP protocol with packet format.	8	CO3	[K ₂]
14.	a)	Brief about the importance of Simple Network Management Protocol (SNMP).	6	CO4	[K ₂]
	b)	Explain the basics of POP3 mail access protocol.	10	CO4	[K ₁]
15.	a)	List out the steps to implement the LAN connection.	8	CO5	[K ₂]
	b)	Explain about Information and Network Security.	8	CO5	[K ₁]
16.	a)	Compare IPV4 and IPV6.	8	CO3	[K ₂]
	b)	Tabulate the various HTTP request operations.	8	CO4	[K ₁]

Please indicate knowledge level (K₁toK₆) and Course Outcome level (CO1 to CO5) against each question for each subdivision.