Roll No. [   ]

COER University
END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours   Total Marks : 100
Program Name : M.Tech.(CSE)   Semester : II
Course Name : Advanced Computer Network   Course Code : MTCS201

Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	What is internetworking and how do networks differ? Discuss any three different types of networks.	CO 1	1
(b)	List the types of Network Layer Protocols.	CO 1	1
(c)	Differentiate Ipv4 and Ipv6.	CO 1	4
(d)	Explain the process of connectionless internetworking and how it differs from connection-oriented internetworking.	CO 1	1
(e)	Compare and contrast UDP and TCP protocols. What are the advantages and disadvantages of each?	CO 1	1

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Draw the block diagram for Wireless Networks.	CO 2	5
(b)	Differentiate MIPV4 and MIPV6.	CO 2	4
(c)	Explain TCP SNOOP with diagram.	CO 2	2
(d)	What is QoS provisioning? Why is it important in network management?	CO 2	1
(e)	Explain the difference between symmetric key and public key algorithms in cryptography	CO 2	1

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	CO	BL
(a)	Explain the concept of WiMax and Zigbee.	CO 3	2
(b)	List the Routing Challenges for Ad-Hoc Networks.	CO 3	1
(c)	Explain the concept of GSM and GPRS cellular networks. What are the benefits of using GPRS over GSM, and vice versa?	CO 3	1
(d)	What is DHCP, and what is its role in network configuration? What are the benefits of using DHCP?	CO 3	1
(e)	Explain the concept of digital signatures and their role in ensuring message integrity in network security.	CO 3	1

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Explain the Congestion Prevention Policies.	CO 4	2
(b)	What is NAT, and how is it used to provide network address translation? Discuss the different types of NAT, and the advantages and disadvantages of each. Explain how NAT is used to conserve public IP addresses.	CO 4	2
(c)	Compare and contrast WiMax and Wifi technologies. What are the differences in terms of speed, range, coverage, and security? What are the advantages and disadvantages of each technology, and in what scenarios is each technology preferred?	CO 4	2

Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Discuss the protocol stack used in wireless networks in detail. What are the different layers in the protocol stack, and what are their functions? Explain the importance of each layer in the protocol stack and how they work together to enable wireless communication.	CO 5	1
(b)	Resource Reservation Protocol (RSVP) Explain the role of The Resource Reservation Protocol (RSVP) in QoS provisioning. Describe how it works and the advantages it offers over other QoS techniques.	CO 5	1
(c)	What is IPSec, and how does it provide secure communication over the internet? Explain the various components and modes of operation of IPSec.	CO 5	1