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School of Computing Science and Engineering

Master of Science in Computer Science
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem III - MSCS2340 - Computer Networks

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Discuss the connection oriented means in the TCP. K1 (2)
- 2) Discuss the concept of port addressing and compare with Ipv4 address. K2 (4)
- 3) Examine the structure of an IPv6 (Internet Protocol version 6) address and its advantages over IPv4. K2 (6)
- 4) Discuss the functionality of each layers of OSI Model. K3 (9)
- 5) Discuss the TCP protocol features and its header in details. K3 (9)
- 6) Differentiate between guided and unguided transmission media and provide examples of each. K5 (10)
- 7) Critique the suitability of HDLC and PPP for different network scenarios, such as point-to-point connections, remote access, and virtual private networks (VPNs) K4 (12)
- 8) You are the Network Designer of a Company. The Company wants to set up eight subnet networks with the class C IP address scheme. 200.189.20.0/24 Network Find the Subnet Address, First Host Address, Broadcast Address.. Explain the classless addressing concept with example. K5 (15)
- 9) Suppose you are the Network Engineer of a company. You wants to implement network and web application. Discuss the some network and application layer protocol you want to implement and why? K5 (15)
- 10) You are the network engineer of a company, company wants to design the secure network with different protocols. Discuss the different secure protocols and their features in details. K6 (18)