

Chapter 1: 1– What is the difference between Client and Server? – Servers are computers with software that allow them to provide information, like email or web pages, to other end devices on the network. – Clients have software for requesting and displaying the information obtained from the server. 2– Some networks are classified as Peer-to-Peer network. Explain this type and mention its advantages and disadvantages. In this type, one computer is used for both roles “client and server” at the same time. – Adv.: • Easy to setup. • Less complex. • Lower Cost. • Can be used for simple tasks like transferring files. – Disadvantages.: o No centralized Administration. o Not secure. o Not scalable. o Slow performance. 3– Network Basic components are end devices, intermediary devices and network media. Mention the most common intermediary devices. – LAN Switch – Router – Wireless Router – Multilayer switch – Firewall appliance. 4–Topology terminology is mandatory for anyone dealing with networks. What does it mean? And what are the types of it? They provide a visual map of how the network is connected. – Physical Topology: Physical topology diagrams illustrate the physical location of intermediary devices and cable installation. You can see that the rooms in which devices are located are labeled in this physical topology. – Logical Topology: illustrate devices, ports, and the addressing scheme of the network. You can see which end devices are connected to which intermediary devices and what media is being used. 5– What are the differences between LANs and WANs? Criteria LANs WANs Area limited area such as a home, school, office building, or campus. wide geographical areas such as between cities, states, provinces, countries, or continents. Interconnection end devices LANs Administration a single organization or individual administered by multiple service providers. Speed provide high-speed bandwidth to internal end devices provide slower speed links between LANs. 6– Scalability is one of the characteristics network architects must address. Explain why? A scalable network expands quickly to support new users and applications. It does this without degrading the performance of services that are being accessed by existing users. Chapter 2: 1– How can we configure a switch? What are the access methods of configuring a switch? – Console: This is a physical management port that provides out-of-band access to a Cisco device. Out-of-band access refers to access via a dedicated management channel that is used for device maintenance purposes only. – Telnet: Telnet is an insecure, in-band method of remotely establishing a CLI session, through a virtual interface, over a network. User authentication, passwords, and commands are sent over the network in plaintext. – Secure Shell (SSH): SSH is an in-band and recommended method for remotely establishing a secure CLI connection, through a virtual interface, over a network. 2– what are the command modes to manage a switch or a router? • User EXEC Mode – This mode has limited capabilities but is useful for basic operations. The user EXEC mode is identified by the CLI prompt that ends with the symbol. • Privileged EXEC Mode – To execute configuration commands, a network administrator must access privileged EXEC mode. Higher configuration modes, like global configuration mode, can only be reached from privileged EXEC mode. The privileged EXEC mode can be identified by the prompt ending with the # symbol. 3– what is the command used to change the name of switch? hostname name 4–To secure privileged EXEC access, use the command. Switch(config)# enable secret password 5– what is the command used to save your configuration? Switch# copy running-config startup-config