Text, letter

Description automatically generated

**GASABO DISTRICT**

**DISTRICT COMPREHENSIVE ASSESSMENT, RTQF LEVEL 3**

**2022-2023**

**TRADE: NETWORKING AND INTERNET TECHNOLOGIES**

**MODULE: LAN INSTALLATION**

**DATE OF EXAM: ………………………… Duration: ………….**

**ACADEMIC YEAR: 2022-2023**

**ANSWER SHEET**

**Instructions:**

1. **Answer all questions in section A (55 Marks)**
2. **Answer three question in section B (30 Marks)**
3. **Answer one question in section c (15 Marks**)

**A) Multiple choice 10 questions 2 marks for each**

Q1. If all devices are connected to a central hub, then the topology is called

1. Bus topology
2. Tree topology
3. Ring topology
4. **Star topology**

Q2. Ethernet is a standard for

1. **LAN**
2. MAN
3. WAN
4. All options are corrected

Q3. LAN topology contains

1. Bus
2. Star
3. Ring
4. **All of these**

Q4. WLAN stands for

1. **Wireless Local Area Network**
2. Wire Lost Area Network
3. Wireless Local Ambiguity Network
4. Wired Local Area Network

Q5. Office LANs, which are scatted geographically on large scale, can be connected by the use of corporate………………

1. CAN
2. LAN
3. DAN
4. **WAN**

Q6. LAN works on which of the following layers?

1. Physical
2. Datalink
3. Datalink and network
4. **Physical and datalink**

Q7. What is the size of Ip address version 4?

1. 16-bits
2. **32-bits**
3. 48-bits
4. 64-bits

Q8. Ethernet, Token Ring, and Token Bus are all different types of …….

1. **LANs**
2. MANs
3. WANs
4. VANs

Q9. ………..signal is analog

1. A baseband
2. **A broadband**
3. An Ethernet
4. None of the above

Q10. What is the purpose of a LAN?

1. **To allow computers to communicate with each other in the same area.**
2. To allow computers to communicate with each other-anywhere in the world

**B) SECTION A**

Q11. Define what is LAN? **3marks**

**Local area networks (LANs) are computer networks ranging in size from a few computers in a single office to hundreds or even thousands of devices spread across several buildings. They function to link computers together and provide shared access to printers, file servers, and other services**.

Q12. What is topology and give two types of topology **6marks**

1. **Topology is the arrangement or layout of network devices.**
2. **Physical topology and logical topology**

Q13. What are the interconnecting devices list them. **5marks**

**Interconnecting devices is devices used to connect the end devices on the network**

**Some example: switch and hub**

Q14. List the type of media and give the examples of each? **6marks**

**Wired and wireless media**

**Examples of wired media**

**Cross over cable, twisted pair cable and RJ 45 for**

**Examples of wireless media**

**Bluetooth, infrared, microwaves, satellites**

Q15. What is router device in LAN installation? **4marks**

**Router device is a device that managing traffic between these networks by forwarding data packets to their intended ip addresses, and allowing multiple devices to use the some internet connection**.

Q16. What is the advantage of repeater device in network? **4marks**

**Repeater is network device uses for amplify the signal of network**.

Q17. Differentiate file and folder? **6marks**

**A file is a set of related data or information stored on a peripheral device or secondary storage device. Folder: A folder is a way of grouping files and placing them under a common header**.

Q18. What is a protocol? **2marks**

**A set of rules that govern communication in network.**

**SECTION B 10MARKS FOR EACH ANSWER**

Q19. In dynamic routing protocols there are many protocols we have. Differentiate RIP Version 2 and OSPF Version 2 **10marks**

[**Routing Information Protocol (RIP2)**](https://www.geeksforgeeks.org/routing-information-protocol-rip/)**:** RIP2 stands for Routing Information Protocol version 2 in which distance vector routing protocol is used for data/packet transmission

[**Open Shortest Path First (OSPF)**](https://www.geeksforgeeks.org/open-shortest-path-first-ospf-protocol-states/)**:** OSPF stands for Open Shortest Path First which uses a link-state routing algorithm.

Q20. What is classification of network devices and give example of each? **10marks**

**Interconnecting devices**

* **Switch and hub**

**Access devices**

* **Router and access point**

**Security devices**

* **Firewall**

**End devices**

* **Computer, printer, smartphone and TV**

Q21. Gigabit Ethernet has a data rate of how many megabyte per second? **10marks**

**Gigabit Ethernet has data rate of 1000megabyte per second**

Q22. Explain method of assigning ip address to the computer on network? **10marks**

**Static ip address assigning method is the way of configure the ip address manually to the end devices**

**While dynamic ip address assigning method is the way of getting ip address from dhcp server.**

Q23. In management of network visual equipment what is network visual equipment and give examples of visual equipment. **10marks**

**Visual equipment refers to devices used in the display, production, or distribution of visual media such as images, videos, and presentations**

**Examples of visual Equipment**

**Monitor, projector, presentation, video cameras**

**SECTION C CHOICE ONLY ONE QUESTION**

Q24. As trainee of level 3 you are asked to go to install LAN. What are the requirements components you will need to configure LAN network? **15marks**

Requirements

* **Network switch or router**
* **An Ethernet cable, plus extra ones for every device you want to connect via cable**
* **Computer, printer**
* **Straight through cable, cross over cable**

Q25. In Performing Basic IOS Configuration. Explain in details configuration mode we have **15marks**

**Global configuration mode:** Use to configure privileged EXEC command to enter global configuration mode. The default is to enter commands from the management console

**Privileged EXEC mode: l**evel allows you to access only basic monitoring commands; privileged EXEC level allows you to access all router commands.

**User EXEC mode:**  is the default mode for the device; it supports the lowest level of user permissions