GASABO DISTRICT

ACADEMIC YEAR 2022 - 2023

EXAM TITLE: SETUP LAN

RTQF LEVEL: LEVEL IV

OPTION: NETWORKING

DURATION: 3HOURS

INSTRUCTION TO CANDIDATES:

This paper consists of two sections, A and B

Section A: Attempt all questions   55 marks

Section B: Attempt three (3) questions of your choice: 45 marks

Duration: 3hours

1.   Select the best answer for the following questions **[2 Marks for each question]**

a) What does protocol defines?
- i)   Protocol defines what data is communicated.
- ii) Protocol defines how data is communicated.
- iii) Protocol defines when data is communicated.
- iv) All of above

b) Full Form of NIC?

- i)   New Internet Connection
- ii)   Network Interface Card
- iii)   Network Interface Connection
- iv)   Net Interface Card

c) Which of the following is true example of Mac address:
- i)   18:3D:A2:83:B5:1F
- ii) 00:3G:F2:83:9C:67
- iii) 18:3D:A2:8F:B5:AO
- iv) N8:3D:E0:83:B5:1F

d) Router operates in which layer of OSI Reference Model?
- i)   Layer 1 (Physical Layer)
- ii) Layer 3 (Network Layer)
- iii) Layer4 (Transport Layer)
- iv) Layer 7 (Application Layer)

a) You need to troubleshoot your network IP connectivity. Which of the following commands would you use to find the IP address on your Ethernet 0 interface?

- i)   ping
- ii) IPConfig
- iii) traceroute
- iv) Show interface Ethernet 0

b) Which of the following prompts indicates your router is in Privileged EXEC mode?

- i)   Router>
- ii) Router#
- iii) Router&
- iv) Router$

c) You are configuring your Cisco router and need to go back to User EXEC mode. What command will take you back to User EXEC mode?

i) Router1#enable
ii) Router1#exit
iii) Router1#configure terminal
iv) Router1#disable

d) What is the uses of subnetting?

   i) It divides one large network into several smaller ones
   ii) It divides network into network classes
   iii) It speeds up the speed of network
   iv) None of above

e) Which one of the following protocol is not used in internet?
   i) HTTP
   ii) DHCP
   iii) DNS
   iv) None of the mentioned

f) 18.13.241.8 address lies in which class
   i)   class A
   ii)   class B
   iii)   class D
   iv)   class E

g) . IPV4 Address is
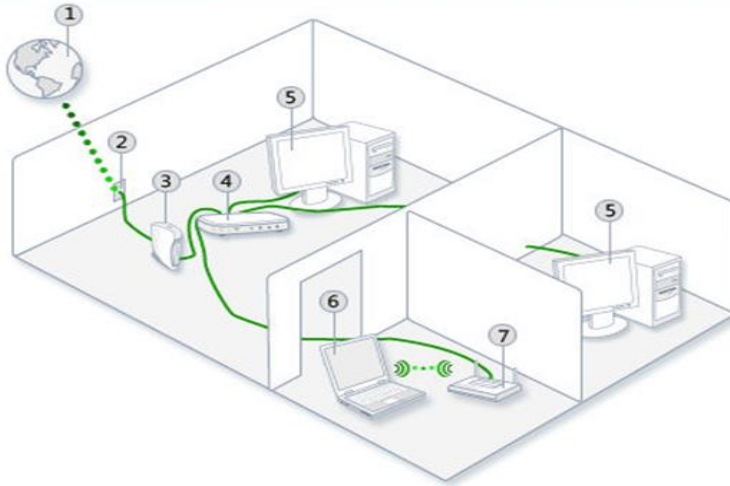   i) . 8 bit
   ii) 16 bit
   iii) 32 bit
   iv) 64 bit

h) Star topology is based on a central device that can be……………?
   i) Hub
   ii) Switch
   iii) Only i
   iv) Both i and ii

i) How much wire does a twisted pair cable have?
   i)   1
   ii)   2
   iii)   4
   iv)   8

2. Name the parts of the network below accordingly**: [7marks]**

3. What are the purpose of having a network, especially LAN   **[4marks]**
4. Match the column A with their corresponding in Column B: **[8marks]**

Column A	Column B	answer
1. Packet tracer	A. Refers to layout of a network: how different nodes in a network are connected to each other and how they communicate.	
2. LAN ports	B. is a type of connector commonly used for Ethernet networking	
3. RJ45	C. is a high-speed device that receives incoming data packets and redirects them to their destination on a LAN	
4. NIC	D. Tool utilized in training for Network certifications by allowing students to create networks with an almost unlimited number of devices and to experience troubleshooting without having to buy real Cisco routers or switches.	
5. Wireless access point	E. A common network communication standard, which is used to define a method of exchanging data over a computer network.	
6. A switch	F.Is a device that performs the functions of a router and also includes the functions of a wireless access point. It is used to provide access to	

	the Internet or a private computer network.	
7. A network protocol	G. It is a computer hardware component that connects a computer to a computer network.	
8. *Network Topology*	H. Ports where you connect network devices such as client machines, server and other network devices	

5. List different methods you may use to access router **[3marks]**
6. What is MAC address? How does it differ from an IP address? **[4marks]**
7. Refer to the exhibit. Which three labels correctly identify the network types for the

   network segments that are shown? (Choose three) **[3marks]**

   a) Network A — WAN
   b) Network B — WAN
   c) Network C — LAN
   d) Network B — MAN
   e) Network C — WAN
   f) Network A – LAN
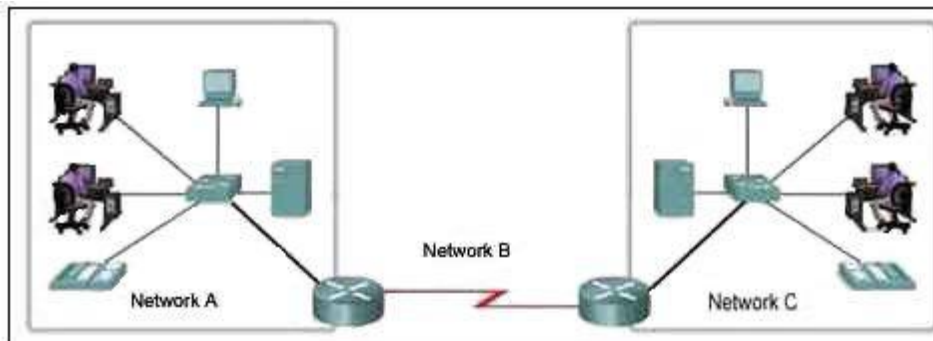
SECTION TWO: Attempt Three (3) questions of your choice: [15 marks for each question]

8. List and explain all steps required to identify network problems? **[15marks]**

9. State and explain all network troubleshooting tools you know **[15marks]**

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10. List and explain IOS Configuration mode **[15marks]**

11. Design a LAN that can allow six wired computers and two wireless devices to share the internet **[15marks]**
    Answer:

12. Enumerate all tools and steps required to make Ethernet cable. **[15marks]**

GOOD LUCK