Final Exam
GARNET-AfNOG-NSRC Network Monitoring and Management Workshop
Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
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1. If someone tells you that you've been given a "/23" how many usable IP addresses does this represent?

2. What is "jitter"? What can cause it?

3. What is the first command you type in IOS on a Cisco router to be able to configure the router?

4. What does ping -s 1472 -c 100 10.10.0.250 do?

5. Which ping command will have a shorter round trip time (RTT):

    a. ping –s 1472 nsrc.org
    b. ping –s 56 nsrc.org

    Why?

6. What is a feature of UDP that makes it a useful protocol for certain types of services?

    a. It establishes a reliable connection between two networked devices.
    b. UDP guarrantees that data arrives in the correct order.
    c. UDP is a connectionless protocol.

    Name, at least, one software we used this week that uses UDP to communicate information:

7. On a 10Mbps connection from point A to B that can either travels via sattelite for a total distance of 30,000KM, or travel via fibre optic cable for a total distance of 100KM…

    What is the difference in transmission delay between these two possible routes?

    a. The transmission delay of a is greater than b
    b. The transmission delay of b is greater than a
    c. The transmission delay of a is the same as b

8. If you see lots of packets, but not very much data arriving and your router's CPU is at 100% utilization what might be happening? What tool network monitoring tool(s) might you use to figure this out?

9. Connect each of the network monitoring tools listed below with the core funcationaly that best represents what they do:

    | Nagios | Reliability |
    | Smokeping | Availability |
    | Cacti | Performane |