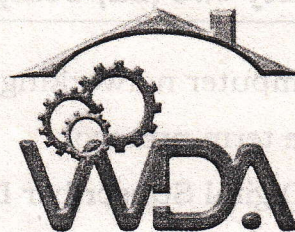**WORKFORCE DEVELOPMENT AUTHORITY**

CSC&CSM– MS Office and Networking
T097
Thursday, 17/11/2016
08:30 – 11:30

P.O. BOX 2707 Kigali, Rwanda Tel: (+250) 255113365

ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016,
TECHNICAL AND PROFESSIONAL STUDIES

EXAM TITLE: Microsoft Office and Networking

OPTIONS: Computer Science (CSC)

Computer Science and Management (CSM)

DURATION: 3 hours

INSTRUCTIONS:

The paper is composed of **three (3) main Sections** as follows:

Section I: Twenty-two (22) compulsory questions.   **55 marks**

Section II: Attempt **any three (3)** out of five questions.   **30 marks**

Section III: Attempt **any one (1)** out of three questions.   **15 marks**

Note:

Every candidate is required to carefully comply with the above instructions. Penalty measures will be applied on their strict consideration.

Section I. Twenty-two (22) Compulsory questions   55marks

01. What is computer networking?   3marks

02. Explain the term protocol.   3marks

03. What is a Digital Subscriber Line (DSL)?   3marks

04. Define Nslokup tool in networking?   4marks

05. Give at least five Radio waves frequencies which are used in a wide
range of wireless communication.   5marks

06. Explain the considerations to bear in mind when selecting or buying a
NIC to use on a network?   5marks

07. In MS-Word, for what does ruler help?   3marks

08. Which portion of LAN management software restricts access, records user
activities and audit data etc? *Security management* ✓   2marks

09. What is the central device in star topology? *Hubs/switch.* 2marks

10. Which server allows LAN users to share computer programs and data?   2marks

11. Which topology is used for large networks? *File Server*   2marks

12. Why are pairs of wires twisted together in UTP cable?   3marks

Read carefully and fill in the following statements with the convenient response.

NB: Write complete sentences.

13. A character that is raised and smaller above the baseline is known as:............

- Raised,   - Capscript,
- Outlined,   ✓- Superscript   2marks

14. Which of the following formulas will not be calculated using Excel?

✓=SUM(Sales);   ✓=SUM(A1:A5)/(10-10);
=SUM(A1:A5)*0.5;   =SUM(A1:A5)-10)   2marks

15. Which button do you click to add up a series of numbers?   2marks

✓- The AutoSum button;   - The Quick Total button;
- The Formula button;   - The Total button   2marks

16. When using PowerPoint, to play a Power Point show for previewing the show,
select ....

- View, slide sorter;   ✓- View, slide show;
- View, slide;   - View outline   2marks

⑫ This is done to reduce crosstalk and electronic interference, each of which can degrade network performance. Each signal on a twisted pair requires both wires.

17. The device used in a data communication network to perform the conversion between analogue and digital signals, is called a.............................

    - Front end processor;   - Decoder;

   ✓ - Modem;   - Multiplexer   **2marks**

18. The Internet offers different services. Distinguish among the following which one listed below is incorrect?

    - Chat room;   ✓ - Off line shopping;

    - Electronic mail;   - World Wide Web   **2marks**

19. A router **2marks**

   ✓ - Determines on which outgoing link a packet is to be forwarded

   • - Forwards a packet to all outgoing links

    - Forwards a packet to the next free outgoing link

    - Forwards a packet to all outgoing links, except the link upon which the packet originated.

20. The Internet is an example of a **2marks**

    - Cell switched network;   - Circuit switched network

   ✓ - Packet switched network;

21. The device operating at Data link layer is **2marks**

   ✓ - Bridge;   ✗ Router;   - Repeater

22. If a computer on the network shares resources for others to use, it is called........

   ✓ - Server;

    - Client;

    - Mainframe   **2marks**

Section II. Choose and answer any three (3) questions.   **30marks**

23. (A) Consider the address 192.168.10.0 /28 calculate the No of subnet.

    (B) What are common software problems can lead to network defects?

    (C) Give some examples of private network addresses.   **10marks**

24. Define extranet. In what companies may use extranet? List five.   **10marks**

25. Explain four phases of how dhcp client get ip address from dhcp server.

                                                    10marks

26. How are charts useful in Excel? Compare any three chart types available in Excel.

                                                    10marks

27. Write formulas for the operations (a) – (d) based on the spreadsheet given below along with the relevant cell address:

	A	B	C	D	E	F	G
1	SNO	Name	Science	Maths	Computers	Total	Average
2	1	RUKUNDO	70	80	87	--	--
3	2	AMANI	90	98	89	--	--
4	3	RUGWIRO	90	90	98	--	--
5	4	KAMANZI	60	76	78	--	--
6	5	KALISA	50	45	67	--	--
7	Max				--		
8	Total		--				

a. Calculate the Total Marks as sum of Science, Maths & Computers for each student and display them in column F. $=C_2 + D_2 + E_2$

b. Calculate the average marks for each student and display them in column G. $=AVG(C_2:E_2)$

c. Calculate the highest marks in Computers and display it in cell E7. $=Max(E_2:E_6)$

d. Calculate the total number of students appearing for the Science test and display it in cell C8. $=COUNT(C_2:C_6)$ **10marks**

Section III. Choose and answer any one (1) question. 15marks

28. The data encapsulation is the process by which the data get modified by each layer being prepared to be transmitted over the network. During that process some layer will add different headers. Which are the OSI layer responsible for the below different types of headers:

        a. Frames   c. Packets

        b. Segments   d. Bits

29. Differentiate a router from a switch? And give the layer of TCP/IP model by which we found the router and the switch?

30. What is the difference between the HALF-DUPLEX and FULL-DUPLEX?