WORKFORCE DEVELOPMENT AUTHORITY
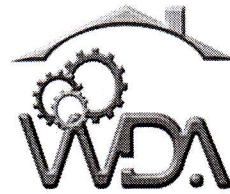
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ADVANCED LEVEL NATIONAL EXAMINATIONS, 2018, TECHNICAL AND PROFESSIONAL STUDIES

EXAM TITLE:

OPERATING SYSTEM, MAINTENANCE AND REPAIR

OPTION: Computer Electronics (CEL)

DURATION: 3 hours

INSTRUCTIONS:

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

Section I: Twenty one (21) 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 one (21) Compulsory questions   **55 marks**

01. What is the advantage of open source?   **(2 marks)**

02. GUI stands for the Graphical User Interface.

    a) Briefly explain the term GUI.   **(2 marks)**

    b) Write two advantages and two disadvantages of GUI.   **(4 marks)**

03. How can you determine the total memory used by LINUX? Give the five (5) methods that help to determine the total memory.   **(5 marks)**

04. Write a command that will display all .txt files, including its individual permission.   **(1 mark)**

05. Differentiate Real Time from Time Sharing Systems?   **(2 marks)**

06. The operating system controls and coordinates the use of hardware among the different processes and applications. What are really the main functions of operating system?   **(3 marks)**

07. Name the functions constituting the OS's memory management.

      (2 marks)

08. Name the different types of memory.   **(2 marks)**

09. How are data structures handled by NTFS and how does it recover from a crash?   **(5 marks)**

10. Briefly explain the positioning time for a disk.   **(3 marks)**

11. Differentiate the user mode from monitor mode.   **(4 marks)**

12. What are the activities related to the Time Shared User Program Management?   **(3 marks)**

13. What is multitasking?   **(1 mark)**

14. What is a folder in Ubuntu?   **(2 marks)**

15. Explain why Ubuntu is safe and not affected by viruses?   **(3 marks)**

16. When an input file is opened, what are the possible errors that may
    occur?   **(2 marks)**

17. What complications does concurrent processing add to an operating
    system?   **(3 marks)**

18. How is Memory measured?   **(1 mark)**

19. What is the role of memory or RAM in the computer system? **(2 marks)**

20. How does dynamic loading aid in better memory space utilization?
                                                                   (1 mark)

21. Briefly explain this notation "C:\directory\subdirectory\ filename".
                                                                   (2 marks)

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

22. Give the meaning of these Linux commands.   **(10 marks)**

Command	Meaning
ls	
cd	Controlling a cd room
passwd	it used for changing a password
file	
cat	
pwd	
Exit or logout	
man	
info	It shows a details
apropos	

23. List and explain the content of any ten subdirectories of the root
    directory in Linux.   **(10 marks)**

24. List and explain any five characteristics to consider while choosing a printer. **(10 marks)**

25. You are called by the accountant officer, complaining that the printer has a problem. Assuming that the printer is on and is well connected to the computer; explain any five problems that could be possible causes of the printer malfunctioning. **(10 marks)**

26. Give any five (5) configuration files and their corresponding services in Linux. **(10 marks)**

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

27. Explain the following concepts:

    (a) SRAM   (b) DRAM   (c) SDRAM   (d) DDR SDRAM   (e) RDRAM
    (15 marks)

28. Explain the shell script. **(15 marks)**

29. a. Give any five problems that can damage the data on the internal storage of the PC.

    b. Give disadvantages of Tape backup drives. **(15 marks)**