WORKFORCE DEVELOPMENT AUTHORITY

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ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016, TECHNICAL AND PROFESSIONAL STUDIES

EXAM TITLE: Operating System, Maintenance and Repair

OPTION: Computer Electronics (CEL)

DURATION: 3hours

INSTRUCTIONS:

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

Section I: Fifteen (15) 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. Fifteen (15) Compulsory questions   55marks

01. Explain the POS process.   **4marks**

02. Give any **two** devices that use a serial port.   **3marks**

03. Give any **two** functions of BIOS.   **3marks**

04. Define track and sector.   **3marks**

05. Explain a process.   **3marks**

06. Give any **two** methods for dealing with deadlock problem.   **3marks**

07. Explain disk partitioning.   **3marks**

08. Define:

    a. Multiprogramming

    b. Multiprocessing

    c. Distributed processing   **6marks**

09. Define: **4marks**

    a. The buffer

    b. The cache

10. Define following terms on disk performance: **8marks**

    c. Seek time

    d. Rotational delay

    e. Transfer time

    f. Access time

11. Explain the importance of CMOS.   **3marks**

12. Define EPROM.   **3marks**

13. Explain the utility of MSCONFIG command.   **3marks**

14. Define handheld systems.   **3marks**

15. Give three (3) elements determining the performance of a PC.   **3marks**

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

16. How to Add Missing Windows Installations to the Boot Configuration Data (BCD)?   **10marks**

17. Define the Hardware Components of a Desktop Computer/Laptop?   **10marks**

18. Explain the main components of CPU.   **10marks**

19. Write short notes on the following storage devices: **10marks**

    a. CD ROM

    b. DVD

    c. Zip Disk

20. a) If a Customer complains that his computer is working really slow, what are the things you would check?   **(5marks)**

    b) Mention advantages of Multiprocessor systems.   **(5marks)**

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

21. Discuss the system requirements for components in a computer for Windows XP to run effectively.

22. What are the main steps required in Operating System installation?

23. Differentiate between primary memory, secondary memory, and cache memory.