SLIATE

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SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION
(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Information Technology
First Year, First Semester Examination – 2020
HNDIT1102- Computer Hardware

Instructions for Candidates: No. of questions: 05
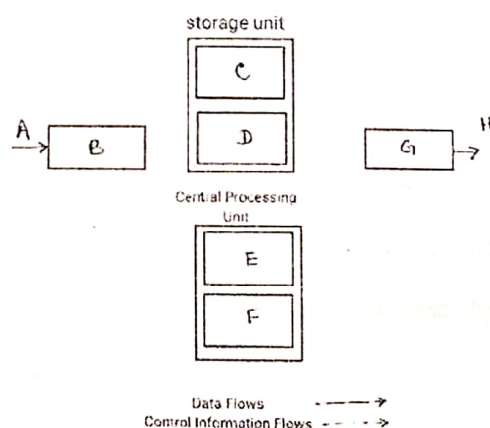Answer four (4) questions only   No. of pages   : 03
                                                Time: 02 hours

Question 01

1) Nimal inserted his debit card into the ATM, entered his PIN number and withdrew Rs. 1000 from his account. Then he checked the account balance. According to the data processing answer the following questions.   **(06 Marks)**

    a. Identify two data inputs given by Nimal

    b. Write two processes performed by ATM System

    c. Write two outputs given by the ATM System

2) "Second Generation computers are small in size than the First Generation computers" Do you agree with this? Justify your answer.   **(05 Marks)**

3) State four characteristics of a computer.   **(04 Marks)**

4) Following diagram shows a block diagram of computer. Name the blocks and mark data flows and control information flows correctly in two different colors. Redraw the block diagram in your answer script. Name and draw the arrows with the given format.   **(10 Marks)**

Question 02

1) Define the term hardware and provide two examples   (04 Marks)

2) What is meant by FAT and NTFS?   (02 Marks

3) Name four (04) Operating systems used for computers   (04 Marks)

4) Compare and contrast Ink Jet printers and Laser printers   (08 Marks)

5) A student from Higher National Diploma is planning to purchase a printer for academic purposes.

    a. What type of a printer do you recommend   (03 Marks)

    b. Briefly explain two (02) factors that should be considered when buying a printer.

                                                         (04 Marks)

Question 03

1) State three (03) functions of a processor   (03 Marks)

2) Mention four advantages of using a UPS (Uninterrupted Power Supply) for a computer.
                                                         (04 Marks)

3) "Shutting down the computer by pressing the power button of your computer is a good practice" As a hardware technician do you agree with this statement? Briefly explain the reason for your answer.   (04 Marks)

4) Expand the following abbreviations.   (05 Marks)

    I. PCI

    II. AGP

    III. ISA

    IV. USB

    V. IDE

5) Briefly explain the following terms   (09 Marks)

    i)   Program Counter (PC)

    ii)   ROM (read only memory)

    iii)   ALU (Arithmetic and Logic Unit)

Question 04

1) Briefly explain the term Resolution. (04 Marks)

2) What is the purpose of Secondary Storage in a computer? (04 Marks)

3) Briefly explain Volatile Memory by providing two (02) examples. (04 Marks)

4) Provide 03 examples for Non Volatile memory. (03 Marks)

5) Briefly explain the term "device driver". (05 Marks)

6) Briefly explain the term "Booting" in computing. (05 Marks)

Question 05

1) The display of Nimal's laptop is not shown (no display) when he turns it on. But a beep sound can be heard. Briefly explain the reasons for the issue. (04 Marks)

2) Briefly explain "Disk Partitioning" (04 Marks)

3) You are supposed to replace a motherboard of a computer. What are the steps you need to consider? (05 Marks)

4) Mention two (02) functions of a power supply unit? (04 Marks)

5) Nirmal turns on his computer. But it doesn't turn on. (No any sound or display) It doesn't power on. Mention four possible reasons for the problem. (08 Marks)