



SLIATE

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 – 2016

HNDIT1102 / IT1001- Computer Hardware / Personal Computer Hardware & System Operation

Instructions for Candidates:

Answer Four (04) question only .

No. of questions : 05

No. of pages : 03

Time : **02 Hours**

Q1)

- I. One component of a computer system is “Livewire”. What are the other main components of a **computer system**? (02 mark)
- II. What is meant by **file extension**? Write four (04) extensions used in windows environment. (03 mark)
- III. Explain the differences between **volatile** and **non-volatile** memories. (04 mark)
- IV. Classify the computers according to **computational method** and explain each of them in brief. (06 mark)
- V. What is meant by a **special purpose computer**? Give two (02) application examples of special purpose computers. (04 mark)
- VI. Explain the following computer terms in brief.
 - a. Recycle bin (03 mark)
 - b. Shortcut (03 mark)

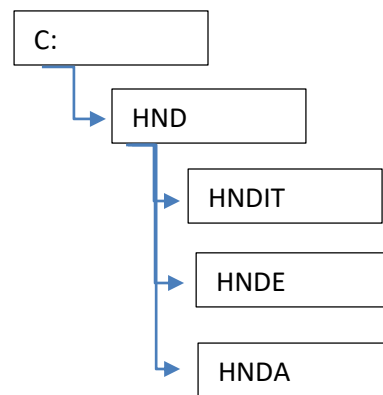
Q2)

- I. Briefly describe the CPU and its operations. (4 marks)
- II. Draw the block diagram of a CPU. (Hint: Your diagram should show the connection between every component). (06 marks)
- III. Explain the operation performed by following components.
 - a. Instruction Register (02 marks)
 - b. Program counter (02 marks)

- c. ALU (02 marks)
- d. Control Unit (02 marks)
- IV. What is the purpose of registers and the cache memory in the CPU? (04 marks)
- V. What is the difference between SATA and IDE technologies? (03 marks)

Q 3)

- I. What is meant by “Computer File”? (3 marks)
- II. Discuss features of a Folder. (3 marks)
- III. Explain how to create the following folders on the hard disk. (3 marks)



- IV. Give four important functions of BIOS. Explain how to enter into BIOS setup.(6 marks)
- V. Describe important roles of the Operating System. (5 marks)
- VI. Specify minimum hardware requirement for *MS Windows 7*. (5 marks)

Q4)

- I. What are the three (3) main characteristics of Random Access Memory? (03 marks)
- II. Differentiate SRAM and DRAM. (04 marks)
- III. What are the features of the touch screen? (03 marks)
- IV. What are the four (4) touch screen technologies available? (04 marks)
- V. Compare and contrast CRT and LCD monitors. (06 marks)
- VI. Differentiate North Bridge and South Bridge. (05 marks)

Q5)

- I. Name two types of printers and give an example for each. (04 marks)
- II. Fill in the blanks of the following table. (06 marks)

Disk Name	Expanded Name	Capacity
CD	--(a)---	--(b)---
DVD	--(c)---	--(d)---
BD	--(e)---	--(f)---

- III. Describe the followings:
- a. Potter (03 marks)
 - b. Optical Disc (03 marks)
 - c. Magnetic Tape (03 marks)
- IV. Draw the structure of a hard disk and identify the following components. (06 marks)
- a. Track
 - b. Sector
 - c. Block
 - d. Cylinder
 - e. Disk Head
 - f. Platter