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 – 2017
HNDIT1102 / IT1001- Computer Hardware / Personal Computer Hardware & System Operation

Instructions for Candidates:
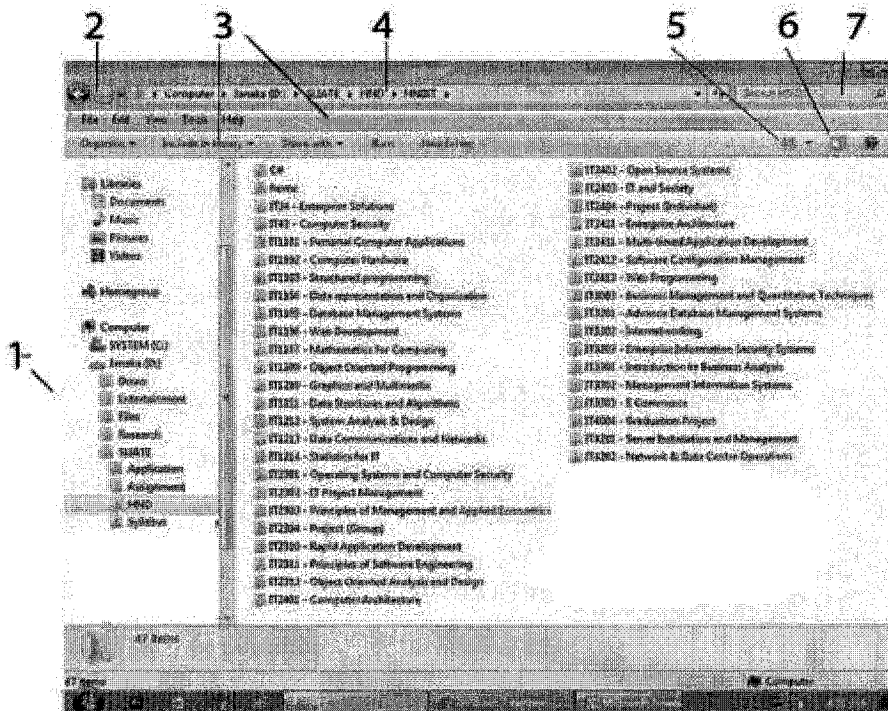
Answer Four (04) questions only .

No. of questions : 05

No. of pages : 03

Time : 02 Hours

Question 1

I. A computer receives X through an input device and it produces an output Y. Identify the X and Y and briefly explain the difference between them.

[4 Marks]

II. Storage devices can be categorized as volatile and non-volatile. Explain them with two example for each storage.

[4 Marks]
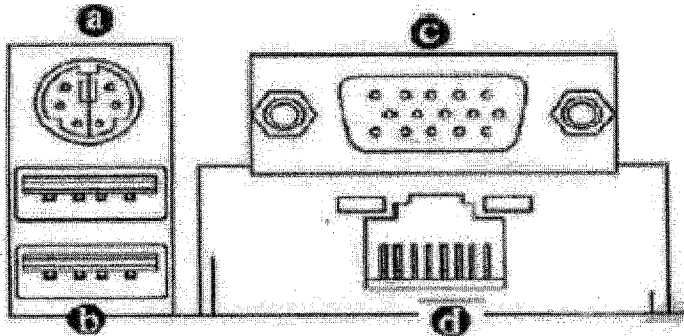
III. Identify each of the names numbered here.

[7 Marks]

IV. Explain the following computer terms in brief. [10 Marks]
1. File
2. Folder
3. Short cuts
4. Recycle Bin

Question 2

I. Device Manager is a system tool in Microsoft windows system. What are the facilities it provides? [4 Marks]

II. "Plug and play (PnP)" is a technology used in computing. Explain the technology with examples. [4 Marks]

III. Assume: Your computer infected by a virus and your very important documents are corrupted.
   a. How would you prevent from losing your documents? Explain the steps in windows 7 or windows 10. [4 Marks]
   b. When a computer restoring, it keeps a "snapshot" of a computer's data called restore point. Briefly explain why it keeps a snapshot. [4 Marks]

IV. List 3 types of user accounts in windows 7 or windows 10 and describe briefly each including at least three points. [9 Marks]

Question 3

I. What is meant by modular design? [3 Marks]
II. What are the advantages of Modular Design? List Three. [3 Marks]
III. Name three different modules found in personal computer? [3 Marks]
IV. Identify the following components in back panel of Main board. [4 marks]

V. Describe PSU and CPU and differentiate them. [6 Marks]
VI. Name three expansion cards. [3 Marks]
VII. Name three different types of communication buses? [3 Marks]

Question 4

I.   Fourth generation computers are made with microprocessors. What are the unique features they offer when it is compared to previous generations?   [3 Marks]

II.   Give 2 examples of microprocessors?   [2 Marks]

III.   List 3 Main Components in a PC?   Draw the relationship between the main components and system bus?   [5 Marks]

IV.   Computer display devices can be categorised as flat panels and CRT.

   a.   Name 3 different Flat panels.   [3 Marks]

   b.   What are the advantages of Flat panel over CRT display?   [3 Marks]

V.   Computer storage can be categories as optical and magnetic.

   a.   List 3 Type of Optical storage and its capacity?   [6 Marks]

   b.   List 3 Types of Magnetic storage?   [3 Marks]

Question 5

In your hardware practical session, you have been given all parts of a computer and you are required to assemble them without any supervision.

I.   Briefly explain about motherboard installation.   [6 Marks]

II.   What are the hardware modules that should be connected with power supply unit?   [4 Marks]

III.   Explain how to connect cables of storage devices, and other necessary cables to the motherboard.   [6 Marks]

IV.   Explain how to enter into BIOS setup program. (CMOS setup)   [4 Marks]

V.   After assembling, your computer is unable to boot. Explain troubleshooting steps to boot the computer.   [5 Marks]