Advanced Diploma in Information Technology (ADIT) / Bachelor in Information Technology (BIT)

00206

Term-End Examination
December, 2010

CST-101 : FOUNDATION IN INFORMATION TECHNOLOGY

Time : 2 hours *Maximum Marks : 50*

Note : *There are **two** sections in this paper. **Section A** consist of objective type and short answer type questions. All the questions in **Section-A** are **compulsory**. **Section A** carries **26** marks. **Section B** carries **24** marks. Attempt **any two** out of **three** questions in **sections B**.*

SECTION - A

1. Attempt the following 10 objective type question. There are four choices given for each question. Select the best choice. If none of the given choices are correct then mark '0' as your answer. Each objective type question carries one mark. **10x1=10**

(a) Which of the following is not a high level language.

(i) COBOL

(ii) Assembly

(iii) FORTRAN

(iv) Pascal

(b) What is the main purpose of the operating system ?

(i) Coding

(ii) Testing

(iii) Maintainance

(iv) Productivity maximization.

(c) Magnetic tapes are _____ access media.

(i) Randomly

(ii) Semi-dynamical

(iii) Sequential

(iv) dynamical

(d) A PROM is a memory chip on which data can be written _____.

(i) Many times

(ii) Only 2 times

(iii) Only one time

(iv) Only once in a year.

(e) The main difference between static and dynamic RAM is :

(i) Volatile nature.

(ii) Refresh rate

(iii) Availability

(iv) Durability

(f) What is decimal equivalent of "1.001" binary number ?

(i) 12.5

(ii) 1.25

(iii) 1.125

(iv) 0.125

(g) _____ machines have same length instructions in their instruction set.

(i) CISC

(ii) RISC

(iii) UNIVAC

(iv) All of the above

(h) The number of bits that a Computer can process at a time in parallel is called the _____.

(i) Speed

(ii) Nibble

(iii) Word length

(iv) Accuracy

(i) Which of the following UNIX command tell the system to continue running a process, even if the user logs outs.

(i) PS

(ii) nohup

(iii) finger

(iv) source

(j) UNIX is an example of _____.

(i) Batch processing operating system.

(ii) Read - time system

(iii) Time - sharing operating system.

(iv) All of the above.

2. Compare and give at least three differences between the following : **4x3=12**

(a) Batch and multiprogramming operating system.

(b) Primary and Secondary memory

(c) RAM and ROM

(d) Magnetic disk and Optical disk.

3. What is an *i-node* ? What is its significance in UNIX file system ? Explain briefly about the information that is stored in it. **4**

SECTION – B

4. (a) What is paging ? Explain how the address are mapped in paging with the help of a diagram. 6

   (b) What are the phase of software development ? Explain the important activities performed in each phase. 6

5. (a) Explain the importance and functions of loader and linker programs. Also, give at least two important differences among them. 6

   (b) What is the importance of interrupts ? With the help of a flow chart, show (step - by - step), what happens when an interrupt occurs ? 6

6. (a) Define "quality of a software". How will the standardization of software engineering principles enhance the quality of software ? 4

   (b) List the important functions of an operating system. 2

   (c) Explain the use of the following UNIX commands with the help of an example for each : 6

   (i) talk (ii) source

   (iii) write
