

The Open University of Sri Lanka

B.Sc. Degree Program: Level 03

Final Examination 2008/2009

AMU 1190/NSU 1190: Computer Studies

Duration: **Two Hours**



508

Date: 17/12/2008

Time: 1.00 pm – 3.00 pm

Answer FOUR questions only.

1.
 - i. Briefly describe the technology based classification of the computer, starting from the first generation.
 - ii. Computers are capable of handling most of the tasks better than human beings. Give three real life examples where human capabilities can overtake the computer.
 - iii. Explain how *registers* and *primary memory (RAM)* contribute to the performance of the computer.
 - iv. Explain how ALU works in the task of adding two numbers.

2.
 - i. What do you understand by the term size-based classification of a computer?
 - ii. What is FAT? Explain the purpose of having it.
 - iii. Explain the following;
 - a) Windows explorer
 - b) File manipulation
 - iv. Give MS-DOS commands to do the following operations;
 - a) Delete all the files in your floppy disk that start with the letter c and whose file types are text.

 - b) Move all executable files in a directory named "order" in the floppy disk in to drive C.

- 3.
- i. State three purposes of having *Inter Block Gaps* in magnetic tapes.
 - ii. Suppose that a disk pack contains 8 platters. There are 120 sectors per track and a surface contains 256 tracks.
 - a. How many usable tracks does a single cylinder of the disk pack contain?
 - b. If the average seek time is 10 milliseconds and the average access time is 15.00×10^{-3} seconds, calculate the rotating speed of the disk pack.
 - c. The disk pack can transfer data at a rate of 6144000 bytes/second. Calculate the total capacity of the disk pack.
- 4.
- i. What do you mean by the term an *Operating System*? Briefly explain three main functions of an Operating System.
 - ii. Describe what do you mean by a high-level language.
 - iii. Describe how computers can be used in a school to make their day to day activities easier.
 - iv. Briefly describe the functions of an Assembler, a Compiler and an Interpreter.
- 5.
- i. Describe how the Internet can be used to enhance distance education, considering the features of the Internet.
 - ii. WWW is the most powerful service on the internet. Briefly explain how it can be used for advertising over the Internet.
 - iii. Write short notes for each of the following terms in the context of the Internet.
 - a. Node
 - b. Protocol
 - c. FTP
 - d. Web browser

6.
i. Determine the n^{th} term of the series given below.

$$1 + a + (1 + d)a + (1 + d)^2a + (1 + d)^3a \dots\dots\dots$$

Develop a flow chart to find the sum of the series for given values of a , d and n .

- ii. Write a pseudo code to read three positive real numbers A , B and C , and determine whether A , B and C can form the sides of a triangle. If A , B and C form a triangle then calculate the perimeter of the triangle, else display the message "Not a triangle".
(Hint: A , B , C can form a triangle if $A < B + C$, $B < A + C$ and $C < A + B$;
perimeter = $A + B + C$).

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