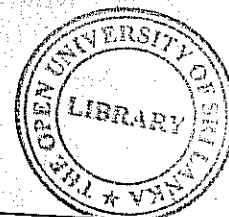The Open University of Sri Lanka
B. Sc. Degree Programme – Level 03
Department of Mathematics and Computer Science
Final Examination 2009/2010
PCU 1159/NSU1159: Computer Skills

Duration: **Two hours only**
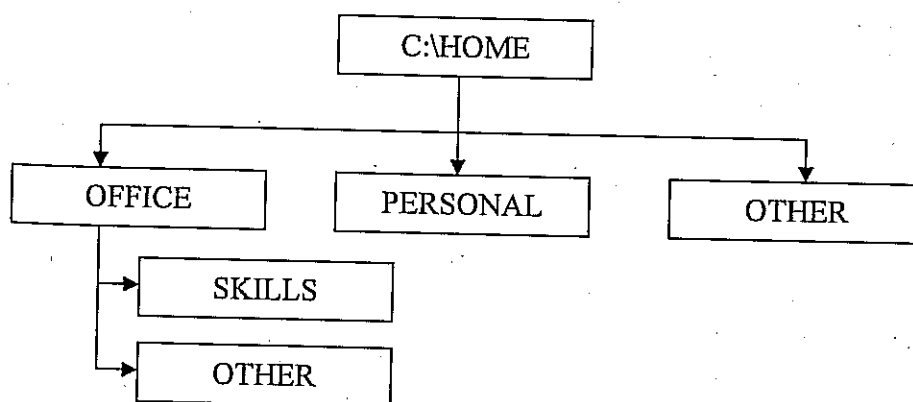
18. 12. 2009

Time: 9.30 am - 11.30am

Answer FOUR Questions ONLY

Q1.

a. What are the four functional components of a Personal Computer?
b. Briefly describe the following computer hardware components,
   i. Motherboard
   ii. Processor
   iii. Output Devices
c. What are the layers of a computer system?
d. What are the differences between a Super Computer and a Personal Computer?

Q2.

a. As we turn on a computer, the BIOS perform several tasks, what are them?
b. Briefly describe the following terms
   i. MS-DOS Operating System
   ii. Windows XP
   iii. Linux
c. Create the following directory structure using MS-DOS commands

d. Write suitable MS-DOS commands to perform the following tasks
    i. According to the directory structure in part (c) there are two files named 'sample1.doc' and 'sample2.txt' stored in the C:\HOME Folder. Copy these two files into the SKILLS folder.
    ii. To see more information about the 'dir' command.

Q3.

a. What is the general structure of an HTML document?

b. Write suitable HTML codes to display the following text on your web page.

    i. **Ozone (O$_3$)** is a *triatomic molecule*, consisting of three oxygen atoms.

    ii. Pass Marks = Marks < 100 & Marks > 40

c. Write suitable HTML codes to create the following table on your web page.

Exam Results		
Index No	**Course Code**	**Grade**
	CSU1159	A
AS2001	PSU1161	D
	PSU1160	B

d. Write suitable HTML codes to generate the following list into your web page.

> 1. Introduction
> 2. Computer Science
>   - Computer Skills
>   - Programming
>   1. C++
>   2. Java
>   - Graphics Design
> 3. Physics
> 4. Chemistry

Q4.

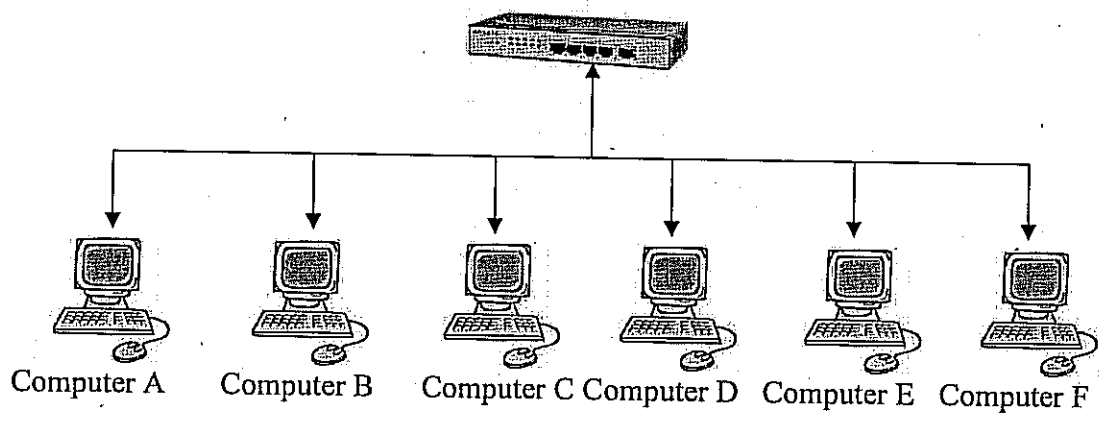a. What are the classifications of a Computer Network by Scale?
b. What is the hardware that is needed to connect two computers?

c. Briefly describe the following terms
   i. Network Topology
   ii. Network Switch
   iii. Server and Client

d. Use the following network diagram to answer the questions given below.

Computer A   Computer B   Computer C Computer D   Computer E   Computer F

Computer	IP address	Subnet Mask
A	10.72.101. 56	255.255.255.0
B	10.72.56. 16	255.255.255.0
C	10.72.101. 101	255.255.255.0
D	10.73.56. 127	255.255.255.0
E	10.72.101. 205	255.255.255.0
F	10.72.56. 56	255.255.255.0

   i. How many
      (a) physical and
      (b) logical network(s)
      are available in the above diagram?
   ii. What are the other computers that are available in the network where the computer A belongs to?
   iii. What is/are the Network Class(es) of the each Network?
   iv. Specify the IP and the subnet mask of a new computer to be added to the network which contains the computer B.

Q5.

a. Compare three differences between Microsoft Office and Open Office.
b. What are the minimum system requirements needed to install Microsoft Office 2007 in your personal computer?
c. What are the packages available with Microsoft Office professional 2007?
d. Write three features available in Microsoft Excel 2007?

e. Use the following data set on the Excel worksheet to answer the questions given below.

	A	B	C	D
1	IndexNo	Marks		
2	AS001	34		
3	AS002	67		
4	AS003	83		
5	AS004	90		
6	AS005	23		
7	AS006	78		
8	AS007	38		
9	AS008	39		
10	AS009	71		
11	AS010	82		
12	AS011	75		
13	AS012	49		
14	AS013	25		
15	AS014	50		
16	AS015	33		
17				

Write the EXCEL functions to do the following tasks.

i. To get the total marks of the above table.
ii. To print the 'Grade' of each mark under column 'C' (Grade) according to the following criteria.

Mark	Grade
< 40	F
<70	C
<100	A

iii. To find the Maximum and the Minimum marks.

Q6.

a. Describe two differences between Microsoft Windows and Linux operating systems.
b. Describe the differences between Vector Images and Raster Images.
c. Briefly describe the following terms:

    i. Nanotechnology
    ii. e-library
    iii. Agent Technology
    iv. Man-machine co-relation.