Name: _____

PPSN: _____

Comhairle na nDámhachtaí Breisoideachais agus Oiliúna

Further Education Training and Awards Council

Computer Architecture & Systems

C20012

29th April 2013

10:00 - 12:00

Duration: 2 hours

Instructions:

1. Return this exam paper when finished
2. Write your exam number on your answer book **and** on this exam paper

This exam counts for 40% of the module

Computer Architecture & Systems 2013

CTI Senior College, Clonmel

Section A (20%)

Answer any ten questions. All questions carry equal marks (2 marks each). If you answer more than ten questions the best ten marks will be chosen.

1. Write these file sizes in *increasing* order:

   84K 200Bytes 9GB 299MB

2. What is a **GPU** and what does it do?

3. Convert the binary value **1100 0101** into decimal.

4. What is the difference between **HTTP** and **HTTPS**?

5. What is the difference between primary and secondary memory, and what is each used for?

6. What is the Unix command to remove a directory?

7. What do the letters **CMYK** stand for?

8. List two disadvantages of email over traditional mail.

9. List 4 provisions of the Data Protection Act.

10. Define the terms LAN and WAN giving one example of each.

11. List the three main types of printers, giving one advantage and one disadvantage of each.

12. Who is the Windows™ super-user?

Section B (20%)

*Answer any **two** questions. All questions carry equal marks (10 marks each). If you answer more than two questions the best two marks will be chosen.*

1. Outline the steps to connect an office to the Internet:

   a) Outline at least two connection methods available to businesses.

   b) Discuss the advantages/disadvantages of each.

   c) List the hardware details for each connection type.

   d) Discuss the software requirements of an internet-attached computer: what software protocols need to be added? Which user applications are most commonly required and what issues arise from their use?

   e) Name at least two general security issues and how they can be overcome.

10 marks (5 x 2 marks each)

2. (a) List the main components you would expect to find in a desktop computer, including 2 peripherals. Write a note on each to explain its function, and if necessary, an example of its use. Not less than 6 items should be listed.

6 marks

(b) Is the processor speed of the CPU alone a good indicator of system performance? If not, what else could be an indicator of performance and why?

4 marks

3. (a) List 4 common functions of an operating system. Discuss two of these in detail explaining how each function is achieved and the benefit to the end user.

8 marks

(b) Many applications are developed under the Open Source model. List two which are available both for Linux and Microsoft Windows, and with which you are familiar; then discuss them under the headings of:

- Benefit to an organisation of the software
- Features and functions

2 marks