



Comhairle na nDámhachtainí Breisoideachais agus Oiliúna  
**Further Education and Training Awards Council**

# **Computer Architecture & Systems C20012**

**Theory Examination 2008**  
*This written exam counts as 40% of the total module*

## **Duration: Two Hours**

**INSTRUCTIONS TO CANDIDATES:**

1. Answer any **ten** questions from Section A
2. Answer any **two** questions from Section B
3. All questions in each section carry equal marks
4. Return this exam paper when finished along with your answer book

**Candidate Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**PPS Number:** \_\_\_\_\_

## 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. Which form of removable, rewritable storage has most commonly and conveniently replaced the floppy disk?
2. How many gigabytes are in a terabyte?
3. Name two advantages of a broadband Internet connection compared to dial-up, ISDN or other previous common forms of Internet connection.
4. If you bought a laptop with an **AMD® Turion™ 64 x2** processor, what does the **64** mean? What does the **x2** mean?
5. List two benefits of email over traditional mail.
6. Printers use CMYK and monitors use RGB. What do these letters stand for and what are they used to describe and define?
7. What is the difference between web pages/sites prefixed by **http** and those prefixed by **https**?
8. What is the purpose of the Data Protection Act? Outline two provisions of the Act and briefly discuss one of those provisions.
9. What is the function of the Linux command **cd**?
10. When printing, what is the meaning of **duplexing**?
11. Which has greater storage capacity, a DVD-RW disk or an 8GB USB memory stick?
12. Using the Internet it is possible to access and use computers remotely for interactive tasks such as computer programming. Name one means of remote access for this purpose you have used; describe how the process is started, operated and closed down.

## 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 a small home or office computer network to the Internet:

- 1.1. Name two ISPs operating in your area and the Internet connection methods available in your area, with those ISPs and/or others.
- 1.2. Discuss the advantages/disadvantages of two connection methods.
- 1.3. List the main hardware components required for each connection type.
- 1.4. Discuss the software requirements of the computers: what software protocol needs to be added? Which user applications are most commonly used?

**10 marks**

2.1 List the main components you would expect to find in a modern PC, including peripherals. For not less than 4 components or peripherals, write a detailed note explaining their function and, if necessary, an example of their use.

**8 marks**

2.2 Is the GHz clock speed of the CPU alone a good indicator of system performance? Discuss other elements of a computer that may improve system throughput and system longevity.

**2 marks**

3. Linux now exists in a number of attractive and highly functional distributions with sufficient variety of applications to be considered a fully viable replacement for Microsoft Windows™ on the desktop. Describe and discuss the steps by which you might migrate a computer from Windows™ to Linux for ordinary daily office use.

**10 marks**