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

(National Council for Vocational Awards)

Computer Architecture & Systems C20012

Theory Examination 2003

Duration: Two Hours

INSTRUCTIONS TO CANDIDATES:

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

This written exam counts as 40% of the total module

Marking Scheme

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. Give two examples of I/O devices. Write a brief note on one. 1 mark each.

2. How many bits are in a kilobyte? 1024*8 (half marks) = 8192 (full marks)

3. What device translates analogue telephone signals to digital computer signals? Modem. 2 if right, 0 if wrong.

4. What do the letters CLI and GUI stand for? Write a brief note about one of them. Command Line Interface, Graphical User Interface. 1 mark definitions, 1 mark for note.

5. What is the purpose of the Data Protection Act? Outline two provisions of the Act. 1 mark each provision if purpose adequately specified.

6. What is the purpose of virtual memory? Is it faster or slower than normal memory? Additional memory. Slower. 1 mark each.

7. Name two types of removable storage media. Write a note about one. 1 mark names. I mark for note.

    1. What do the letters ASCII stand for? Why is ASCII used? Definition & purpose one mark each.

    2. What is the function of the LINUX command **rm**? What is the command to copy a file? Remove. cp. 1 mark each.

    3. What do the letters USB stand for? Name an advantage of using USB. Definition and benefit 1 mark each.

    4. List two benefits of e-mail over traditional mail. Any two benefits. 1 mark each.

8. What is a computer virus? How can you protect against them? Any appropriate definition & precaution. 1 mark each.

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. (a) List the main components required to create a computer network. Write a description of the most important ones, explaining the function of each.

8 marks.

(b) Briefly list the main components required to link a computer to The Internet.

2 marks.

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

8 marks

(b) Is the processor speed of the CPU alone a good indicator of system performance? Discuss briefly.

2 marks

3. (a) What is the difference between multi-user, single user and network operating systems? Write notes on two of them, giving an example for each that you discuss.

5 marks

(b) What is the function of an interrupt? Write a note on communications resources in a PC. What difficulties can arise with the addition of new hardware to a PC?

5 marks

Mark divisions:

8 marks: 0-3 not good response; 4-5 good but obviously lacking; 6-7 good but imperfect; 8 completely accurate & appropriate answering.

5 marks: 0-1; 2-3; 4; 5

2 marks; 0; 0.5; 1–1.5; 2