e-Quals 07 Unit Syllabus

Level 1 Computing Fundamentals (IC^3)

7266 – 011

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Unit 011 Computing Fundamentals (IC^3)

Syllabus Overview

Rationale

The aim of this unit is to enable the candidate to identify and understand computer hardware, software and the operating system.

Learning outcomes

There are **three** outcomes to this unit. The candidate will be able to:

- Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques
- Identify types and functions of software, how software and hardware interact and fundamental database concepts
- Understand and use an operating system

Guided learning hours

It is recommended that 30 hours should be allocated for this unit. This may be on a full time or part time basis.

Connections with other qualifications

This unit contributes towards the knowledge and understanding required for the following qualifications:

IT Users N/SVQ (iTQ) Level 3

Outcome	Unit
1, 2, 3	102 – Operate a computer 1
1	103 – IT troubleshooting for users 1
1, 3	104 – IT maintenance for users 1
1	105 – IT security for users 1
2	108 – Word processing software 1
2	109 – Spreadsheet software 1
2	110 – Database software 1
2	113 – Presentation software 1
1, 2	116 – General uses of IT
1, 3	117 – Use IT systems 1
2	118 – Use IT to exchange information 1
2	119 – Use IT software 1
1	120 – Purposes for using IT 1

Assessment and grading

Assessment will be by means of a Certiport IC^3 examination. Additional information is available from **www.certiport.co.uk**

Unit 011 Computing Fundamentals (IC^3)

Outcome 1 Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques

Practical skills

The candidate will be able to:

1 identify types of computers, how they process information and how individual computers interact with other computing systems and devices

2 identify the function of computer hardware components

3 identify the factors that go into an individual or organisational decision to purchase computer equipment

4 identify how to maintain computer equipment and solve common problems relating to computer hardware .

Underpinning knowledge

The candidate will be able to:

1 identify and categorise common types of computers

2 define the role of the central processing unit and understand the typical specifications for computer components and peripherals

3 understand how memory is measured and the relationship with devices and files

4 identify the information flow between computers and storage devices

5 understand the differences between centralised processing and desktop computers and identify how computers integrate with other systems

6 list types and purpose of internal and external components and connection ports

7 identify the types and purposes of storage media

8 identify criteria for selecting a personal computer

9 identify how to protect computer hardware

10 list common problems associated with computer hardware

11 identify problems caused by insufficient maintenance

12 identify maintenance that can be carried out by IT users

13 list typical problem solving steps.

Unit 011 Computing Fundamentals (IC^3)

Outcome 2 Identify types and functions of software, how software and hardware interact and fundamental database concepts

Practical skills

The candidate will be able to:

1 identify how software and hardware work together to perform computing tasks and how software is developed and upgraded

2 identify different types of software, general concepts relating to software categories, and the tasks to which each type of software is most suited or not suited

3 identify fundamental concepts relating to database applications.

Underpinning knowledge

The candidate will be able to:

1 identify how hardware and software interact

2 identify simple terms and concepts related to software development

3 identify reasons and methods for upgrading software

4 identify fundamental concepts and common uses of:
- a word processing
- b spreadsheets
- c presentation software
- d multimedia
- e utility software
- f other types of software

5 select an appropriate application for a particular purpose

6 identify fundamental concepts and common uses of databases.

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Outcome 3 Understand and use an operating system

Practical skills

The candidate will be able to:

1 identify what an operating system is and how it works

2 solve common problems relating to operating systems

3 manipulate and control the Windows desktop, files and disks

4 identify how to change system settings

5 install and remove software.

Underpinning knowledge

The candidate will be able to:

1 identify the purpose and functionality of common operating systems

2 recognise and solve common problems relating to operating systems

3 identify and use elements of a Windows desktop

4 understand how to shut down and restart the computer

5 use the Start menu and taskbar

6 manipulate folders and icons

7 manage files using Windows explorer/file manager

8 understand what precautions should be taken when manipulating files

9 identify and solve common file problems

10 display, identify and use control panels and system settings

11 take precautions when changing systems settings

12 install software

13 identify and provide possible solutions to common problems associated with installing and running applications.

Unit record sheet

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Use this form to track your progress through this unit.

Tick the boxes when you have covered each outcome. When they are all ticked, you are ready to be assessed.

Outcome		✓	Date
1	**Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques**	☐	
2	**Identify types and functions of software, how software and hardware interact and fundamental database concepts**	☐	
3	**Understand and use an operating system**	☐	

Candidate Signature ..... **Date** .....

City & Guilds Registration Number .....

Quality nominee (if sampled) ..... **Date** .....

Assessor Signature ..... **Date** .....

External Verifier Signature (if sampled) ..... **Date** .....

Centre Name ..... **Centre Number** .....

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