

OCR L3 Cambridge Technicals - Introductory Diploma in IT

Y12-Y13 Summer Independent Learning 2022

Due date: Ready to submit by the first IT lesson back in September

Unit 18 - Computer Systems (Hardware)

LO1: Understand the components of a computer system

	Pass	Merit	Distinction
1. Understand the components of a computer system	P1: Explain the function of computer hardware components	M1: Compare and contrast different hardware storage devices	D1: Justify the components chosen and how they meet the identified business requirements
	P2: Outline different types of backup storage available		
	P3: Select appropriate components to support identified business requirements		

For all tasks, please remember that you must reference all sources appropriately and provide a clear, detailed bibliography.

You will submit three files from this SIL work before or in your first IT lesson back in September:

Presentation (Task 1) – (P1, P2)

Report 1 (Task 2) – (M1)

Report 2 (Task 3) – (P3, D1)

Scenario: You are employed as a Network Manager at New College. As part of the internal staff development program you have been requested to deliver training to all staff on the topic of 'Computer Components'.

Task 1: A Presentation – P1, P2

Create a presentation with detailed speaker notes that explains the function of computer hardware components. Use images and diagrams to aid your explanations and remember not all staff are computer literate so you need to try and keep the terminology simple.

Include a section at the end to explain backup storage devices and their applications. Wherever possible explain the characteristics, advantages and disadvantages.

You must include the following:

Internal system unit components: processors; motherboards; BIOS / UEFI. hard drive configuration and controllers (e.g. SATA, IDE, master, slave); Thunderbolt; VGA, DVI, DisplayPort, HDMI; internal memory (e.g. RAM, ROM, cache); specialised cards (e.g. network, graphic cards, sound); power supply

Peripherals: output devices (e.g. monitor, printer, speakers); input devices (e.g. camera/webcam, scanner, microphone, mobile devices)

Backup Storage: DASD, SAS, SSD, enterprise storage, NAS, SAN, hybrid systems, virtual tape drives, hard disks, cloud

Task 2: A Report – M1

Create a report to be given to staff that clearly **compares** (similarities) and **contrasts** (differences) the various types of storage devices available.

For each device, be sure to cover their characteristics, advantages and disadvantages.

Task 3: A Report – P3, D1

New College management have identified the need for new computer systems to be used by staff.

Suggest **two** different computer systems that would be appropriate; one pre-built and one custom-built. Identify each component clearly.

Write a report evaluating the two computer system specifications suitable for the needs of your client.

You will then select your preferred system and justify your choice.

Summary of Y12-Y13 IT SIL:

- **Presentation (Task 1) – (P1, P2)**
- **Report 1 (Task 2) – (M1)**
- **Report 2 (Task 3) – (P3, D1)**