

OCR Cambridge Technicals Level 3 IT

Summer Homework 2020

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Unit 1-The fundamentals of IT

ABOUT THIS UNIT

- In order to create, manage or develop information technology systems, you need to understand how the components and software work and their individual purposes. However, these components must be able to communicate with each other to carry out tasks as varied as calculating the price of your new tablet, monitoring medical implants and navigating spacecrafts to the very edge of the galaxy.
- This unit will help you to develop your understanding and prepare you for the units to come. However, you will understand more if you are able to study examples of real systems, hardware and software and so, if the opportunity arises to study this unit alongside the more practical units, through work placement or study of systems that you already work with, then take it.
- This is a mandatory unit for this qualification.



LEARNING OUTCOMES

- The topics and activities in this unit will help you to:
- **1** Understand computer hardware.
- **2** Understand computer software.
- **3** Understand business IT systems.
- **4** Understand employability and communication skills used in
• an IT environment.
- **5** Understand ethical and operational issues and threats to
• computer systems.



How will I be assessed?

- You will be assessed through an external assessment set and marked by OCR.
- Time Allowed: 1 hour 30 minutes
- The total mark for the paper is 80 marks





KEYTERMS

- **Computer components** – items which together form a computer system.
- **Input devices** – devices that allow the user, which may be another computer or a measuring device, to give instruction or provide data to the computer system.
- **Output devices** – devices that enable the computer system to provide information, data or instructions to another user, which may be computer or human.



Task 1- Understand computer hardware.

Produce a list of computer items (*10 items*) which you consider to be hardware. Use a table and images to help you. For example see below.

| Image | Hardware | Input or output |
|---|----------|-----------------|
|  | Mouse | Input device |
|  | Monitor | Output device |



Task 2-Understand computer hardware

Research **three input devices** and **three output devices**, then produce a brief **presentation** explaining the technology of each one, their **advantages** and **disadvantages**.



Task 3-Understand computer hardware

Using the internet, Research the different types of computer screens available (Infrared (IR), Resistive and Capacitive) and produce a short report on the following features for each screen type:

- Method of display
- Resolution
- Picture quality
- Screen size
- The effect of price on quality.



See you in September!

Links to help you with your research:

<https://www.bbc.co.uk/bitesize/guides/zxb72hv/revision/1>

- <http://www.allsee-tech.com/digital-signage-blog/projected-capacitive-vs-infrared-touch-screens/>
- <https://www.electronicdesign.com/technologies/displays/article/21800710/whats-the-difference-between-resistive-and-capacitive-touchscreens>

Loom introduction Video link:

- <https://www.loom.com/share/f2c297ad650146749a5fa2a35cd93825>

