

# GCSE Theory Element

## 2010

✓	Theory Section
	<b>Paper 1</b>
	<b>Information Processing</b>
	Data, Information & Knowledge
	Advantages and Disadvantages of ICT for storing, processing and transmission
	Securing Data
	<b>The Implications of the use of ICT</b>
	Retail services
	Methods of capturing data (adv & disadv)
	Automated shopping system
	Technology for Cash replacement
	Communication Services
	The Electronic Office, hardware/software needed health and safety
	ICT in the Home and Leisure
	ICT in Education
	<b>Impact of ICT</b>
	Employment, training, changes in practice, teleworking, e-commerce, legal issues
	<b>Problem Solving</b>
	Use of generic software: WP, SS, DTP, Dbase, Graphics

# Paper 2

	Paper
	<b>Applications of ICT</b> ( <i>Selected elements – see June 2007 &amp; 2004 for similar questions</i> )
	<b>Robotic and embedded control, Automatic stock control and order processing, Expert systems in medicine, Booking systems.</b>
	<b>Information Processing</b>
	Input → Process → Output.
	<b>Controls of Data</b>
	Data Collection, Capture, OMR, OCR, MICR, Bar Codes.
	<b>Validation</b>
	Ensuring that Data is Suitable, Reasonable or Acceptable. Range, Length, List, Presence, Input Mask, Batch Totals, Hash Totals, Check Digit.
	<b>Verification</b>
	Parity Check, Double Key Entry, Visual Check.

✓	Theory Section
	Paper 2
	<b>Storing Information</b>
	Data Types
	Fixed and Variable Length Fields
	Fields, Records & Files
	Uses of Files
	Database
	File Storage
	Compression of Data
	Securing Data

✓	Theory Section
	Paper 2
	<b>Data Manipulation</b>
	Organising and Updating Files

	Searching for Information
	Developing Information (From different sources of data)
	Presenting Information
	<b>Hardware</b>
	Types of Computer
	Computer Memory
	Storage Devices
	Input Devices
	Output Devices

✓	Theory Section
	Paper 2
	<b>Software</b>
	Operating Systems
	Different types of Operating System
	System Security
	User Interface

✓	Theory Section
	Paper 1
	<b>Networks</b>
	Types of Network
	Security
	Advantages of Networks
	Data Transmission
	Systems Analysis
	Information Systems and Society