

# How to Revise in Business/Computer Science and Information Technology

Email: [k.dixon@erdington.fmat.co.uk](mailto:k.dixon@erdington.fmat.co.uk)





# BTEC Business



Exam Board: BTEC Pearson Edexcel

## Topics:



### Paper 1

- What business aims and objectives are.
- Business revenues, cost and profit.
- Interpretation of break even diagrams.
- Cash and cash flow.
- Sources of business finance.
- Business stakeholders.
- Technology and business.
- Legislation and business.
- The purpose of legislation.
- The economy and business.
- The impact of external influences on business.

### Paper 2

- Methods of business growth and their impact.
- The types of business ownership.
- Sources of finance.
- Changes in business aims and objectives.
- How business aims and objectives changes as business evolve.
- The impact of globalization on business.
- How businesses compete internationally
- The impact of ethical and environmental consideration for a business.





# Computer Science



Exam Board: OCR

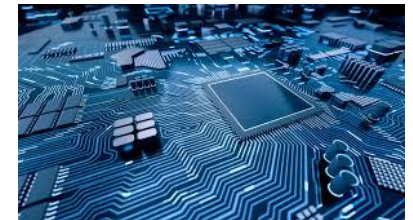
Topics

## Paper 1

- Data Threats
- Networks/Network Types/Connections
- Storage
- CPU features
- Artificial Intelligence
- Operating Systems
- Defragmentation
- Memory – RAM/ROM/VM
- Secondary Storage
- Embedded Systems
- TCP/IP/Packet Switching

## Paper 2

- Abstraction/Casting
- Pseudocode
- High-level Programming Language
- Strings
- Testing/ Test Plan
- Flow Charts
- Binary/Denary
- Binary Shifts
- Hexadecimal
- DIV/MOD
- Logic Gates
- Data Representation
- Searching AND Sorting Algorithms



# Information Technology



Exam Board: OCR Cambridge Nationals

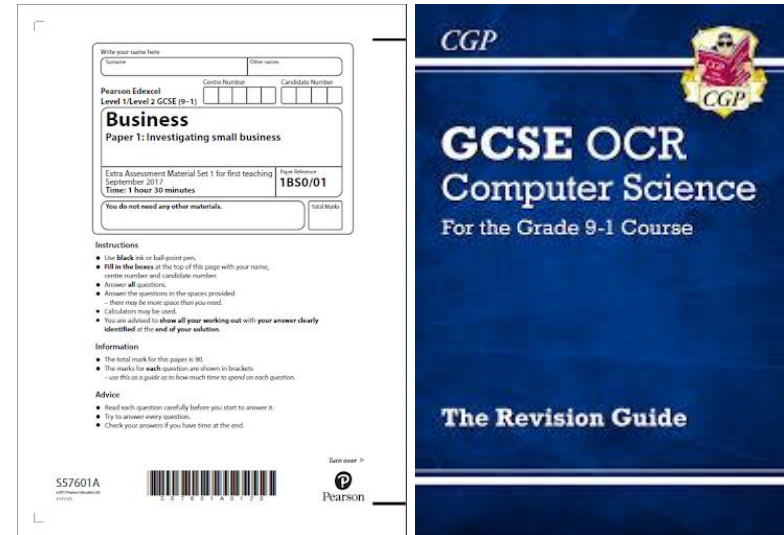
Topics:

- Project Life Cycle
- Data Collection Methods
- Personal Data
- Threats to Data/Attacks
- Promotion Methods
- SMART
- Planning Tools
- Storage Methods
- Integrated documents
- Data Types
- Spreadsheet Software VS Database Software
- Feasibility Reports
- Data VS Information

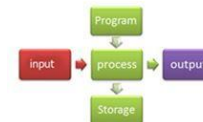


# How can I revise?

- Flash Cards
- Reviewing Past Papers
- Mind Maps
- Revision Guides



A set of inputs, processes that creates a set of outputs - Using Hardware and Software.



- Heating system
- Burglar / Fire system
- Dishwasher
- Set-top satellite box
- DVD Player
- Television
- Smart Phone
- Military systems
- Banking systems

## Topic 3

Reliability.

What happens if one of these systems fail?

- Banking
- Emergency services
- Telephone network
- Food supply.
- Air traffic control
- Nuclear safety

Failure = Lost money, inconvenience, death.

## Topic 4

Professional standards.

Examples of standards

- Use of functions and comments.
- Use of meaningful variable names.
- Indentation.

Enables others to read / edit / maintain the code



# How can I revise?

- Flash Cards
  - Keywords and their definitions
  - Keywords and formulas



<b>Start-up Costs</b>	The costs incurred when setting up a business
<b>Operating (running) Costs</b>	The costs incurred in the day-to-day running of a business
<b>Total Costs formula</b>	<b>Fixed Costs + Variable Costs</b>
<b>Fixed Costs</b>	Costs that do not change regardless of output (how many sold/made)



# How can I revise?

- Mind Maps

<p>Explain what each term means:</p> <p>Abstraction:</p> <p>.....</p> <p>Definitions of each term</p> <p>Decomposition:</p> <p>.....</p> <p>Algorithmic Thinking:</p> <p>.....</p>	<h2>Algorithms</h2> <p>Explain how a merge sort works:</p> <p>Explain how a Binary search works:</p> <p>Explain how a Linear search works:</p> <p>Explain the process of each type of algorithm.</p>
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# How can I revise?

- Revision Guides

### 1.5 Planning tools and the software types used to develop project plans

#### 1.5.1 The purpose of planning tools

Some planning tools are used to create documentation to keep the project on track and monitor progress. They can be used during phase reviews (see Section 1.3, page 10) and can show:

- tasks/processes
- time allocated to each task
- task dependencies
- workflow
- milestones
- resources needed.

Some planning tools can be used to create initial designs for the final product.

Planning tools include:

- Gantt charts
- PERT (Project Evaluation and Review Technique) charts
- critical paths
- visualisation diagrams
- flow charts
- mind maps
- task lists.

These can be divided into formal and informal planning tools, as shown in Table 1.6.

Formal	Informal
Gantt chart	Flow chart
PERT chart	Mind map
Critical path	Task list
Visualisation diagram	

#### Gantt charts

A Gantt chart shows each task as a block of time, and shows:

- how long each task should take
- the order in which the tasks should be completed
- concurrent tasks
- dependencies between tasks
- milestones
- contingency time.

#### Figure 1.5 A Gantt chart

**PERT charts**

PERT stands for **Project Evaluation and Review Technique**. A PERT chart:

- uses circles or rectangles to represent tasks and milestones
- has lines between the tasks to show dependent tasks and time allocation
- represents concurrent tasks with two lines out of a task
- can be used to show the critical path.

#### Figure 1.6 A PERT chart

**Critical paths**

- Show the longest path that the project should take to be completed.
- Show the shortest time that a project can be completed in, if all goes to plan.
- Are worked out by adding up the allocated time for all the dependent – not concurrent – tasks, including contingency time.
- Are used by the project manager to monitor the project to make sure every task is running to schedule.

**Visualisation diagrams**

- Are a rough drawing or sketch of what the final product will look like.
- Are used to visually plan the layout of a **static product**.
- Cannot be used for a product that has a timeline, such as a video.
- Can show the format and layout of outputs from a product such as a report.
- A graph is a visualisation diagram for numerical data.

**Flow charts**

- Are used to show the steps, decisions and outputs in a process.
- Can be used to create a simple diagram of all the steps that need to be carried out in a project.

#### Figure 1.7 A flow chart

**Mind maps**

- Can also be called spider diagrams.
- Start with a target or goal, known as a central idea or node.
- Other tasks branch off the central node.
- Branches can have words on them.
- Branches are the lines that link the tasks or subtasks.

**Task lists**

- Show what tasks have to be completed, the start and end dates, and the **duration**.
- Include all the tasks that must be completed during a project.
- Some tasks may need breaking down into sub-tasks.
- Should be in a logical order; the tasks must flow from the initiation phase to the end of the evaluation phase.
- Can show the resources that will be needed for each task or sub-task.

Task	Start Date	End Date	Duration
Gather requirements	01-Mar	04-Mar	3
Legislation implications	04-Mar	10-Mar	4
Feasibility report	12-Mar	20-Mar	8
Phase review	21-Mar	22-Mar	1
Planning	24-Mar	12-Apr	19
Create constraints list	03-Apr	12-Apr	9
Create test plans	07-Apr	12-Apr	3

**Dependency** A dependent task is one that cannot be started until a previous, specified task has been completed.

**Static product** A product that doesn't move, for example a CD/DVD/Blu-ray cover, poster or magazine front cover.

**Duration** How much time a task should take to be completed.

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Now test yourself

**Now test yourself** TESTED

1 Describe the purpose of a visualisation diagram. [3 marks]

2 Identify two components of a Gantt chart. [2 marks]

3 Describe one advantage and one disadvantage of using a mind map as a planning tool. [4 marks]



# Business Support

Please use the following link to take you to the Edexcel BTEC website: <https://tinyurl.com/eaBUSY11>

There are many useful links to aid whilst revising

Additional Links:

- <https://www.learningwithmrattra.com/btec>
- [bbc.bitesize.co.uk](http://bbc.bitesize.co.uk)
- [gcsepod.com](http://gcsepod.com)

February 2021 Mock papers



February 2020



January 2020



June 2019



February 2019



General support





# Computer Science Support

Please use the following link to take you to the OCR  
Computer Science website: <https://tinyurl.com/eaCSY11>

There are many useful links to aid whilst revising

Additional Links:

- <https://compsci.homelearning.outwood.com/j276>
- <https://youtu.be/t8H6-anK0t4>

Question papers, mark schemes and reports	NEW	▼
2020 - November series	NEW	>
2019 - June series		>
2018 - June series		>
Sample assessment materials		>
Practice papers and mark schemes		>
Programming project		>
Candidate exemplars		>
Resources for students		>





# Information Technology Support

Please use the following link to take you to the OCR Information Technology: <https://tinyurl.com/ealTY11>

There are many useful links to aid whilst revising

Additional Links:

- [https://youtube.com/playlist?list=PL04uZ7242\\_M6-bJHYBn2UO5tGq-0LFclv](https://youtube.com/playlist?list=PL04uZ7242_M6-bJHYBn2UO5tGq-0LFclv)

2020 - January series	>
2019 - June series	>
2019 - January series	>
2018 - June series	>
Sample assessment materials	>
Set assignments	>
Candidate exemplars	∨
2019 - June series	>
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