# **Exam technique**

## What is “exam technique”?

Put simply, understanding exam technique is not about what you know, but how you apply your knowledge under exam conditions.

Whilst revision is a vital part to getting good exam results, examination technique is also important.

Key to this is the importance of understanding “Command Words”.

## Command words

Command Words are guides in the question which identify how the question should be tackled.

They are carefully chosen to make it clear what the examiner is looking for and how they want the question answered.

It is important to always read the whole question and to understand what the question is getting at, as the command word on its own will need reinforcing with the remainder of the question.

**Top tip:** Highlight the command words and relevant facts in the question before answering it.

**Grades E, D, C**

Define, Describe, Explain, Give, Identify, Name, Outline, State, What is meant by…

**Grades D, C, B**

Apply, Demonstrate, Describe, Explain, Give, Identify, Name, How, Show, Using, Why

**Grades B, A, (A\*)**

Advise, Analyse, Assess, Compare, Contrast, Consider, Critically assess, Discuss, Evaluate, Explain, Justify, Organise, Why

What did you notice about the words in the lists?

Certain words appeared in more than one category. This is where the rest of the question is important in giving you the full picture of what is required.

Make sure you understand what the commands words are asking you to do:

* Do not explain if you are being told just to identify.
* Do not simply identify if you are being asked to explain.
* Do not just explain if you are being asked to analyse.

## The first few minutes of the exam

When you hear those words “You may now begin”:

* Avoid the temptation to rush in.
* Adopt a calm, methodical approach.
* Read the instructions carefully.
* Make sure you understand what you must do.

## During the exam

* Spend the right amount of time on each question.
* The AS Level exam is 70 marks and is 75 minutes long.
* The A Level exam is 140 marks and is 150 minutes long.
* Therefore, as a rough guide you should look to spend 1 minute on each question per mark.
* Look for the questions that relate to those parts of the course you have revised the most.
* Read the question carefully before you attempt to answer it.
* What exactly is it asking?
* Does the question have more than one part?
* Make sure to underline or highlight key words (look for those command words)
* Having done all this, is the question about what you think it is?
* Make sure to relate your answer to the scenario.

## If your mind goes blank

* DON’T PANIC and don’t dwell on the question for too long.
* Go on to the next question and come back later.
* Once you have finished the paper try not to leave any question blank. Write anything that might be relevant to the topic or question. You never know your luck!

## Writing on the script

**Tip 1:** Your exam papers are scanned before being marked online by examiners. The examiner will never read your real paper. Each examiner sees just the questions they have been allocated to mark. It is completely anonymous, and they only see the area of a page with lines. Therefore, make sure to keep your answers written on the lines provided. If you can’t do this (maybe because you have crossed out an answer) then:

* Don’t just write in a margin or blank space without first writing somewhere on one line where the examiner can find your answer. The examiner has a button to see the original scan of the whole paper:
	1. Use the continuation pages provided at the back of the exam paper.
	2. Write your answer in any other space provided and note to the examiner where to find the answer!

**Tip 2:** Don’t repeat any part of the question unless it is necessary. E.g., “State the name of a register.” “The name of a register is…”. Simply name a register instead. E.g., “Program counter”.

Using headings is a good idea for higher mark questions.

**Tip 3:** Don’t scribble out wrong answers so they can’t be read. ~~Simply cross them through like this~~.

You will be awarded marks for a crossed-out answer if it is correct and the only one there. So, scribbling it out so it can’t be read could cost you marks!

**Tip 4:** Make sure your handwriting is readable. If in doubt write in BLOCK CAPITALS although this will cut into your exam time.

**Tip 5:** Computing examiners are not English’s teachers they are Computing teachers. They don’t need endless exposition in your answers. Bullet points are the best way to make your point.

**Tip 6:** Even on extended answers worth 9+ marks, the use of bullets is ok to help you structure your response. E.g., If a question asks you to “List and Explain the central components of the CPU”:

Control unit

* Fetch, decode, execute cycle.
* Controls operations carried out.

RAM

* Holds operating system currently in use.
* Holds applications currently in use.
* Holds data current in use by those applications.

ALU

* Performs arithmetic, e.g., calculations.
* Performs logic, e.g., comparing two variables.

**Tip 7:** Avoid simply trying to rephrase the question wording in your answer.

**Tip 8:** READ the question carefully and properly. Make sure you are answering the question asked. Spend time at the end reading the question and your answer again. You may have gone off on a tangent.

**Tip 9:** Make sure you keep your answer in the context of the question scenario. Every question will be based around a scenario, make sure you use it. Don’t just write what you know about the subject. You must usually apply your knowledge to questions worth more than a couple of marks.

**Tip 10:** You will be credited for the correct answer, even if it is not in the mark scheme! Don’t be afraid of using self-taught / gained knowledge in your answer.

**Tip 11:** Don’t be tempted to create a “shopping list”. This is where you do a kind of brain dump regarding everything you know about a topic in the hope of getting the correct answer. E.g., You are asked to list 3 input devices. However, you can’t quite remember which are input and which are output so you list say 7 answers. At least 3 are valid input devices and in fact they are the first three answers you list, but there are also a selection of output and maybe even storage devices in your list. An examiner will spot you are not sure of the correct answer, and you will score zero.

**Tip 12:** If a question has multiple sub parts marked like this i) ii) iii) then you are allowed follow-through. This means that part ii) will need information from part i). You might get the answer to part i) incorrect. If the method you use in part ii) is correct you will get the marks for using the incorrect answers from part i) in your answer. This is common in binary based arithmetic questions.

## Making longer answer questions easier

Longer answer questions are typically worth 6+ marks. Every exam paper will also have at least one extended answer question. These are worth 8 marks at GCSE and 9 or 12 marks at A level.

In at least one extended question in each paper the quality of your written communication (spelling, punctuation, grammar & technical terms ), will be assessed, these questions are marked with an asterisk (\*).

E.g.

*(b) \* The Internet has had a major effect on society. Discuss the social and ethical effects on young people of allowing unrestricted access to The Internet. [8]*

With any of these questions start by taking time out to properly read and pull apart the question, perform the following tasks:

1. Highlight the command words
2. Highlight any other parts of the question which are important
3. Identify the scenario
4. Split the question into multiple parts

**Task 1**: Highlight the command words

*(b) \* The Internet has had a major effect on society. Discuss the social and ethical effects on young people of allowing unrestricted access to The Internet. [8]*

Discuss means: “Give an account that addresses a range of ideas and arguments”

**Task 2**: Highlight any other parts of the question which are important

*(b) \* The Internet has had a major effect on society. Discuss the social and ethical effects on young people of allowing unrestricted access to The Internet. [8]*

The question is asking you to talk about the “effects” on young people. So, make sure to talk about this.

However, check carefully it is not that simple, you could still get side tracked if your answer just becomes about the effects of The Internet on young people.

This question is asking you to be more specific, you must isolate your answers to talking about the effects unrestricted access to The Internet has had on young people.

**Task 3**: Highlight any other parts of the question which are important

*(b) \* The Internet has had a major effect on society. Discuss the social and ethical effects on young people of allowing unrestricted access to The Internet. [8]*

The scenario is all about The Internet and how it has had a major effect on society.

**Task 4**: Split the question into multiple parts

*(b) \* The Internet has had a major effect on society. Discuss the social and ethical effects on young people of allowing unrestricted access to The Internet. [8]*

There are actually two questions here.

1. A discussion of the social effects
2. A discussion of the ethical effects

The examiner will expect you to divide your response equally between these two parts, so you can’t focus to heavily on one over the other. This has now become 2 slightly less daunting four-mark questions instead of one eight-mark one.

In our head we should now be seeing the following two questions:

1. *What are the social effects on young people of unrestricted access to the Internet. [4]*
2. *What are the ethical effects of young people having unrestricted access to the Internet. [2]*

This is the same question as was presented in the exam paper, however now it is much easier to tackle, you are more likely to keep on point and to make sure you answer all aspects of the question.

We can even take this one step further.

**Notice how each question asks you for the “effects”.**

Effects come in two forms, Positive and Negative.

So, we now have 4 two-mark questions instead of one eight-mark one.

1. *What are the positive social effects on young people having unrestricted access to The Internet. [2]*
2. *What are the negative social effects on young people having unrestricted access to The Internet. [2]*
3. *What are the positive ethical effects on young people having unrestricted access to The Internet. [2]*
4. *What are the negative ethical effects on young people having unrestricted access to The Internet. [2]*

We can now structure our exam paper with headings. This will really help show the examiner you have understood the question. It will help you focus and stay on point. Here is an example:

Positive Social Effects:

Negative Ethical Effects:

Positive Ethical Effects:

Negative Social Effects:

[8]

Make sure to make at least two valid points under each heading to match the number of marks. Be concise. Use correct terminology and examples.

It is acceptable to use bullet points to help spilt your answer. You don’t have to write in paragraphs.

However, remember that some of these questions are marked on the quality of your written communication. So, you must still write in full sentences, and check that spelling and grammar!

## Making relevant points

For larger questions based on scenarios where an organisation might be changing part of their computer system, you can structure your answer to the four aspects of this framework:

|  |  |
| --- | --- |
| **Stakeholders*** Anybody involved either directly or indirectly: customers, workers, managers, the wider community.
* How each stakeholder is affected and to what extent.
 | **Technology*** What technology is available(related to the scenario)
* How the technology works.
* Comparisons of different technology.
 |
| **Moral / Social / Cultural / Legal*** How the problem relates to issues.
* What are the privacy issues.
* What are the social issues.
* What are the cultural issues.
* What are the legal issues and Acts.
 | **Solutions*** Any technological or other solution and how it solves the problem.
* Analysis of the solution and its effects.
* How it all fits together.
 |

## Assessment objectives (AO)

When extended answer questions are marked, you are not given credit for individual points you make, but instead on the coherence and application to the scenario of the whole response. Each exam board will be different, so check past paper mark schemes to see the AO breakdown, but this might be:

* Knowledge 2 marks
* Understanding 2 marks
* Application 2-3 marks
* Evaluation 2-5 marks

You can structure your answer using the framework on the next page.

Facts

Conclusion

How this relates to the scenario

What this means

[9]

Example:

A charitable organisation is trying to make the works of Shakespeare available to more people. The entire works will be available as a downloadable text file from its website. It decides to compress the file before making it available to download.

Discuss whether run length or dictionary encoding would be best for the organisation. [9]

Dictionary encoding would reduce the file size so this would be the best choice.

Run length encoding is not suited to natural language. Run length encoding would

likely increase the file size.

Conclusion

Dictionary encoding is suitable for text because there are lots of repeating words

in a large body of text such as Macbeth or Romeo.

Run length encoding is unsuitable for text because there are very few consecutive

repeating symbols in text such as ll, oo and ee. These are also very short runs.

How this relates to the scenario

E.g. AAAABBBBBCCC could be represented as 4A5B3C in run length encoding.

E.g. the word Macbeth could be index 1 in dictionary encoding.

With dictionary encoding a table is used to record which tokens match which words.

With run length each set of consecutive characters can be represented by the

character and its number of occurrences.

What this means

Dictionary encoding replaces each word with a token.

Run length encodes consecutive characters that are the same.

[9]

Facts