

Examiners' Report
June 2015

GCE Design and Technology 6GR03 01

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Introduction

The examined unit covers knowledge and understanding of a range of modern design and manufacturing practices and contemporary design issues. This includes a good working knowledge of the use of ICT, systems and control technology and industrial production systems in the design and manufacture of commercial products. Additionally, candidates need to be aware of important contributions by designers from the past which may provide the inspiration for future designs. Candidates also need to know that sustainable product design is a key feature of modern design practice.

More able candidates performed well across the paper demonstrating detailed knowledge and understanding of key concepts and content. They were able to:

- Analyse and respond appropriately to the command verb used in the question
- Read the question carefully and respond appropriately to the specific focus or scenario of the question
- Draw upon detailed knowledge of the specification content
- Analyse products and consider the designer's approach to form versus function
- Demonstrate a sound understanding of automated storage and retrieval systems (ASRS) within computer integrated manufacture (CIM)
- Demonstrate understanding of environmental considerations when selecting materials.
- Evaluate the use of energy recovery following the disposal of waste

Less able candidates:

- Provided more generic responses rather than focusing upon the specific requirements of the question
- Did not respond appropriately to the command verb in the question
- Were not able to differentiate between different industrial production systems
- Relied upon knowledge recall rather than application.

Candidates need to have covered all areas of the specification in detail and be able to differentiate between key technologies. Knowledge and understanding of production systems continues to be a problem area for many candidates.

Overall the paper performed well and in line with previous examination series providing appropriate content and rigour across the ability range, although the mean score was slightly higher than in the previous examination series.

Question 1 (a)

Modern marketing and manufacturing techniques affect many aspects of our consumer society. Describe how companies target children as new consumers.

This question was generally done very well by the majority of candidates, many providing textbook answers and it is clear that the core textbook has been used for the teaching of this topic.

The most common response related to targeted advertising during childrens' TV and the resulting 'pester power' when children want the product. Other common responses included 'kids are growing older younger', 'gotta catch 'em all' and 'the culture of cool', all of which are direct quotes from the core text.

(a) Describe how companies target children as new consumers. *appealing collectable*
(2)

Companies target children with novelty ideas, bright colours, attention grabbing adverts that get the child's attention and make them want a product. They can also endorse freebies and include characters etc.



ResultsPlus Examiner Comments

This candidate was awarded the full two marks for this question. The candidate has produced a good response that includes the use of bright colours, characters and attention grabbing adverts to get the child's attention.



ResultsPlus Examiner Tip

Remember that a 'describe' question needs the identification of a key point followed by further elaboration. In a two mark 'describe' question the identification of two separate unrelated points will not merit the award of two marks.

Question 1 (b)

Modern marketing and manufacturing techniques affect many aspects of our consumer society.

(b) Discuss the effect of mass production on employment

Candidates generally responded well to this question demonstrating a good understanding of the effects of mass production upon employment. However some candidates discussed mass production increasing employment, not realising that mass production increases efficiency and economies of scale thereby reducing overall employment when compared to traditional manufacturing methods.

Some candidates referred to poor working conditions, poor health and safety etc. The focus of the question is not on offshore production so references to sweatshops etc do not warrant credit under the mark scheme.

(b) Discuss the effect of mass production on employment.

(4)

One effect of mass production on employment is the loss in skills as a less skilled workforce is needed. Mass production also increases unemployment as more manufacturers now use machinery in mass production. Mass production also increases the need for skilled engineers to maintain and repair some machines. Furthermore, mass production can also de-motivate a workforce as they will have more to do with little breaks. This could lead to fatigue and potential a less efficient workforce.



ResultsPlus
Examiner Comments

This is a good response that was awarded the full four marks. The candidate has maintained a focus on employment and has included:

- Loss of skills
- Increased unemployment
- New engineer roles to maintain and repair equipment
- Poor job satisfaction / low morale



ResultsPlus

Examiner Tip

Remember to look for the key focus of the question which, in this case, is the effect of mass production on employment. This is not an opportunity for you to explain your knowledge about mass production. You are merely explaining the effect of mass production on employment and the workforce.

Question 2a

Anthropometric data is used in the design of consumer products

(a) State a source of anthropometric data used when designing for the UK market

Candidates had difficulties with this question. The response needed to be a specific source of anthropometric data and not a generic response eg surveys, the internet, websites or measurements of the human body which were not acceptable responses. The most common correct response was British Standards Institute or BSI.

(a) State a source of anthropometric data used when designing for the UK market.

(1)

BSI (British Standards Institute).



ResultsPlus

Examiner Comments

This is a typical response where the candidate has correctly stated British Standards Institute (BSI) as an appropriate source.



ResultsPlus

Examiner Tip

Remember to revise key facts as any 'state' or 'give' type questions will rely upon knowledge recall.

Question 2 (b)

Anthropometric data is used in the design of consumer products

(b) Outline how anthropometric data is used to cover a large proportion of the population

Most candidates achieved two marks for this question with the third mark providing a good discriminator for the more able candidates. Most were able to outline designing for the majority or middle 90% -- the extremes or outliers (below 5th and above 95th percentile) excluded.

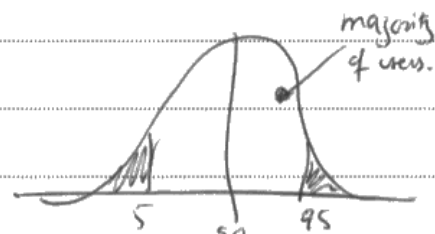
To achieve full marks candidates would need to explain that different data sets are available for different populations (regions of the world) or males and females or adults and children (within differing age ranges).

Outline how anthropometric data is used to cover a large proportion of the population.

(3)

- Statistical graphs using between the 5th and 95th percentile ranges provides designers with the majority of their user base.

- Targets widest possible audience.



ResultsPlus

Examiner Comments

The mark scheme permits the use of a correctly annotated normal distribution curve. Here the candidate's graph identifies how the data is used to target the majority of the population, exclusion of the outliers and use of the mean. This response was awarded the full three marks.



ResultsPlus

Examiner Tip

Remember graphs and diagrams could help you when answering questions.

Outline how anthropometric data is used to cover a large proportion of the population.

(3)

It covers the range between the 5th and 95th percentile to ensure it covers the largest population range. This means it will fit anthropometrically/ergonomically, the largest customer/consumer base. Data is collected from people ~~in~~ in each country - as values vary worldwide (i.e. UK not BSI). The 5th and 95th percentile are the anomalies or smallest class (rare) so companies do not cater for this.



ResultsPlus Examiner Comments

This is a very good response that has identified the target range and the exclusion of outliers below the 5th percentile and above the 95th percentile. The third mark has been achieved for identifying that data is relevant to a specific country or region.



ResultsPlus Examiner Tip

In an outline question check how many marks are available. In this instance three marks could be awarded so three key points need to be included in your answer.

Question 2 (c)

Anthropometric data is used in the design of consumer products

(c) Explain two ergonomic features that should be considered when designing the driver's seat of a car

In this question the focus is on the seat and not on other elements of the car. The response had to relate to how the seat adapts ergonomically to the driver, taking specific needs into account when driving the car: e.g. a response 'the position of the steering wheel in relation to the seat' or 'the size of the steering wheel' focuses on the car and is not a feature of the seat. These responses would receive zero marks as they do not cover how the seat ergonomically adapts to the position of the steering wheel and other fixed controls of the car.

As this is an 'explain' question remember the responses must be linked. The first part of each response should be the identification of a feature and the extension should explain the feature. On a four mark 'explain' question the maximum identification mark is two.

(c) Explain **two** ergonomic features that should be considered when designing the driver's seat of a car.

- (4)
- 1 Lumber Support -> Will provide a user with correct back support so fatigue will not occur when driving which could affect safety of self as well as others.
 - 2 Adjustable headrests -> Provides support for the user's neck which will prevent fatigue as well as mitigating harm to others. As well as this, it will prevent severe spinal damage in the event of a crash.



ResultsPlus Examiner Comments

This was a good response that was awarded the full four marks. The candidate has explained the provision of lumbar support to provide correct back support and to prevent fatigue; and adjustable headrests to prevent spinal damage (from whiplash) in the event of a crash.



ResultsPlus Examiner Tip

The command verb is 'explain'. In this question you need to identify an ergonomic feature of the seat and then provide a linked response to explain how that feature benefits the user.

This is a good response that was awarded the full four marks. The candidate has considered adjustable height of the seat to provide good visibility and adjustable head rests to provide safety in an accident.

(c) Explain **two** ergonomic features that should be considered when designing the driver's seat of a car.

(4)

- 1 The adjustable height of a car seat, allowing the driver to alter their height so they can safely see over the wheel and still access the pedals. This also provides comfort.
- 2 The adjustable head rest, this can be moved up or down in order to match the driver height. This is for their safety in the case of an accident and also helps with ~~that~~ ^{their} comfort.



ResultsPlus
Examiner Comments

This is a good response that was awarded the full four marks. The candidate has considered adjustable seat height to provide good visibility and an adjustable head rest to provide safety in an accident.

Question 3 (a)

Blue and green screen technologies are widely used in digital special effects during film and television production

(a) Outline the benefits of using these technologies

This question was generally answered very well by the majority of candidates who demonstrated a sound understanding of the technology, typically considering use in news studios; weather reports; reduced need for expensive film sets; filming not being affected by the weather; production of dangerous or impossible situations.

Some candidates however provided detailed coverage of the wrong technology, e.g. CGI or motion capture.

(a) Outline the benefits of using these technologies.

(4)

They allow for scenes and images to be shot which would be dangerous or impossible. For a film they can help to make it more visually appealing, and give the creator an opportunity to create something which has never ^{been} ~~being~~ filmed before. It allows backgrounds to be placed behind footage, meaning that the place doesn't have to actually exist, or, if it does, they won't have to spend time and money travelling and closing streets, or train stations. It is also cheap and fast, an image can be created on the computer ~~re~~ very quickly, and they wouldn't have to worry about things like weather, if they



ResultsPlus
Examiner Comments

This is a response that was awarded four marks covering a range of responses from the mark scheme.



ResultsPlus
Examiner Tip

For outline questions you should consider as many key points as possible.

Question 3 (b)

Blue and green screen technologies are widely used in digital special effects during film and television production

(b) Explain why green screen is now more widely used than blue screen in special effects

This question was answered well by a large proportion of candidates who had a good knowledge and understanding of blue and green screen technologies. The most common responses related to green screens emitting more light and green being a colour that does not feature in human skin tones.

Some candidates however continued to discuss the generic advantages of blue and green screen technologies rather than focusing only on green screen.

(b) Explain why green screen is now more widely used than blue screen in special effects.

(2)

The green background emits more light than blue and it also doesn't feature on skin tones, making it easier to use the compositing technique



ResultsPlus

Examiner Comments

This candidate was awarded the full two marks for the green background emitting more light and therefore making it easier to work with/edit. Without the final part of the response the candidate would only have been awarded one mark.



ResultsPlus

Examiner Tip

Carefully read the question and decide what type of response is required. Here you need to provide a response that explains one reason why green screen is more widely used, rather than two.

(b) Explain why green screen is now more widely used than blue screen in special effects.

(2)

Blue screen is less commonly used than green screen because green screens emit more light, so that it is easy to work with later on.



ResultsPlus
Examiner Comments

This is a straightforward mark scheme response that was awarded two marks.

Question 4 (a)

Electronic communications are now common throughout the business world

(a) Discuss the use of email as a means of communication between designers and manufacturers

Candidates, in today's modern society, have an excellent knowledge and understanding of the benefits and drawbacks of email. However the question here has a specific focus on communications between designers and manufacturers.

Many candidates have provided a good generic response to this question. Fewer, however, have linked their response to communication between designers and manufacturers. This lack of focus has limited their opportunities to access the higher marks.

(a) Discuss the use of email as a means of communication between designers and manufacturers.

(4)

It creates a paperless society, contributing to sustainability. It is quick and easy; emails are sent and received immediately. It can be accessed anywhere with an access to the internet. Files can be attached; they can be saved and modified, allowing quick feedback from the manufacturer to the designer. It may, however, limit the size of the attachments that can be sent. There is also a risk of viruses and personal information being provided to someone else. Nevertheless, email is the most commonly used means of communication world-wide.



ResultsPlus

Examiner Comments

This response was awarded four marks. The candidate has covered a range of mark scheme responses including a quick/instant way of communicating; widespread usage; file attachments; faster design decisions; attachment file size limits; spreading of viruses; hacking of personal information. There is also a clear link to communication between designers and manufacturers, so the answer is not generic.



ResultsPlus

Examiner Tip

When the question has a focus, eg communications between designers and manufacturers, there has to be a link to that focus within your answer. For this question a generic essay about the advantages and disadvantages of email will not achieve full marks.

Question 4 (b)

Once again, many candidates have provided a good generic response to this question. However fewer have linked their response to video conferencing between designers and manufacturers. If there are no links to the use of video conferencing between designers and manufacturers then the lack of focus limits access to higher marks.

This question is an evaluation so the response must cover both advantages and disadvantages in order to achieve the full four marks.

(b) Evaluate the use of video conferencing for meetings between designers and manufacturers.

(4)

Video conferencing is a good option for meetings between designers and manufacturers. As it can be quite easy to set up and easy to use it can mean they can communicate easily. As video conferencing is similar to talking face to face, it can be much easier to communicate information and design changes as well as being quicker. Video conferencing also allows for visual aids to be used and presented meaning that designers can show designs / design changes on camera for quicker approval. However there are some issues with video conferencing. The connection may be poor resulting in bad audio / image or delayed connection, making communication very difficult. Camera shyness means people may not communicate as well as they could and also

(Total for Question 4 = 8 marks)

The lack of eye contact means it is not as personal and they could get annoyed with each other more easily or attended. Video conferencing does require equipment such as webcams / speakers / microphones alongside a computer. This equipment is relatively expensive however, if the equipment is poor in quality, then the audio / video may be low quality, making it difficult to communicate. ~~Common~~ Video conferencing between two different time zones can also be very difficult to arrange and execute, again making communications difficult.



ResultsPlus

Examiner Comments

This is a response that is clearly linked to the use of video conferencing between designers and manufacturers. It covers a broad range of mark scheme responses, achieving a total of four marks.



ResultsPlus

Examiner Tip

Try to present your answer in the space provided. However, you are advised to use an additional answer booklet if you need to extend your answer beyond the allocated (lined) space on the examination paper. Remember in evaluation questions your response needs to cover both benefits and drawbacks.

Question 5 (a)

The command verb in this question is 'outline' so this requires consideration of the system rather than an evaluation or comparison of the benefits.

The key focus is the use of ASRS within computer integrated manufacture (CIM). Some candidates inappropriately outlined its use within warehousing and distribution, giving an example of Amazon distribution centres. If the focus of the response was not within CIM then the candidate could not access higher marks.

Some candidates mistakenly described EPOS systems which generated no marks for this question.

Also many candidates were discussing the ASRS being able to deal with heavier weights than humans. This was not considered to be a valid response because the alternative would have been traditional forklifts and other handling/transportation equipment.

- (a) Outline the use of automated storage and retrieval systems (ASRS) within CIM.

(4)

ASRS can perform tasks which are too physically demanding for humans. It can be used to lift stuff off from a shelf which is high up and bring it down. Also it can lift stuff up and place them back on the correct shelf by being controlled from someone on the ground. It allows more items to be stored on top of each other, using less space and saving money.

It can also transport items from one station to another without having to wait for a batch to be made.



ResultsPlus
Examiner Comments

The candidate has not responded appropriately to the question and was awarded zero marks. The response relates the system being controlled by 'someone on the ground' rather than controlled and guided by computer and also appears to be an outline of the candidate's perceived benefits of the system rather than an outline of the system itself.



ResultsPlus
Examiner Tip

Read the question carefully and focus on the specific requirements of the question.

Question 5 (b)

Modern manufacturing makes extensive use of computer integrated manufacture (CIM).

(b) Justify the use of CNC (computer numerically controlled) machinery to produce a prototype interactive display stand.

Candidate performance on this question followed a normal distribution with a modal mark of two.

Here the key focus is to justify the use of CNC for a prototype. Generic CNC production essays do not provide access to higher marks as the responses lack the necessary focus.

This is also a question that required two linked responses. Candidates could only achieve a maximum of two marks for identification points.

It also prevents man made mistakes from happening
(b) Justify the use of CNC (computer numerically controlled) machinery to produce a prototype interactive display stand. (4)
and faster
It allows for precise cutting of the parts and can cut shapes and sizes which would be difficult to make by hand. With it being automated it works with extremely low tolerances making it more accurate. It allows for rapid prototyping of a model in a few hours which is much faster than it would be if someone was to make it by hand so it reduces lead and development times, meaning that the product can go on sale faster. It can be easily altered as it is made on a computer, meaning that things can be easily changed depending on how the model worked.



ResultsPlus Examiner Comments

This was a good response that was awarded four marks. Precision cutting with extremely low tolerances produces an accurate product and is faster than making by hand, and reduces lead and development times.



ResultsPlus Examiner Tip

Remember justification questions require linked responses, for example identification of an advantage/benefit with a linked explanation of why the identification is an advantage/benefit.

Question 5 (c)

Modern manufacturing makes extensive use of computer integrated manufacture (CIM)

(c) Evaluate the use of robotics in automated manufacturing systems

This question has generally been answered well by candidates who appear to have good knowledge of the subject matter with over 50% of the entry achieving the full six marks and less than 1% not scoring on this question. This is an area of the specification that is clearly well covered within available resources and is the subject of effective teaching and learning.

Candidates had also effectively evaluated considering a range of benefits and drawbacks.

(c) Evaluate the use of robotics in automated manufacturing systems.

(6)

Robots can do jobs that humans can't for example they can work in hazardous conditions that aren't safe for humans. They can lift heavier loads than humans and don't lose concentration when performing repetitive tasks. Manufacturing is made quicker as robots don't get



ResultsPlus
Examiner Comments

This is a good response that achieved the full six marks utilising a range of responses from the mark scheme including consideration of both benefits and drawbacks.



ResultsPlus
Examiner Tip

Remember with evaluation questions to consider both benefits and drawbacks or differing viewpoints.

Question 6

Sustainability is important as it preserves resources for future generations and reduces the impact of a product on the environment

Evaluate environmental considerations, for designers, when specifying materials for products and packaging.

Candidates generally performed very well on this question and they clearly had a good understanding of environmental issues and considerations when materials are being selected or specified. This is an area of the specification that is being taught very well and is well embedded within the school curriculum.

The modal mark was seven with 6.6% of candidates achieving the full eight marks by considering potential disadvantages of environmentally friendly materials. This final mark was a key differentiator for the A grade candidate with 80% of grade A candidates achieving eight marks. The average candidate did not consider the drawbacks of environmentally friendly materials.

- 6 Sustainability is important as it preserves resources for future generations and reduces the impact of a product on the environment.

Evaluate environmental considerations, for designers, when specifying materials for products and packaging.

When packagings are made, designers must ensure that the materials used are recyclable. The types of materials and polymers used must be ~~not~~ correctly labelled and ~~only~~ only few materials should be used to make it easier to separate when recycling. Only the required material should be used so that material is not wasted (correct size). When using paper or cards, films and laminations must be minimal or not used so that the paper can be recycled. Ideally, a recycled paper ~~should~~ and plastic should be used so that raw material extraction ~~and~~ and deforestation can be reduced. If possible, biodegradable plastic or biopol should be used so that less CO₂ emission occurs and takes less space in ~~landfills~~ landfills. However, these materials can be expensive as it is a new technology. Further more, using recycled material can be less aesthetically pleasing and have a low quality. Bio degradable plastic also released small amount ~~of~~ amount of CO₂ when degrading. By using Biopol as the packaging, it can be ~~re~~ reused and ~~as~~ it is less harmful to the environment when thrown away. (Biopol is water proof.)



ResultsPlus
Examiner Comments

This is a good response that was awarded the full eight marks utilising a broad range of responses from the mark scheme including the consideration of the potential disadvantages of environmentally friendly materials.



ResultsPlus
Examiner Tip

Carefully read the question and decide what type of response is required.

Question 7 (a)

(a) Explain the disadvantages of 'form following function' when designing a point of sale display

The focus here is on *design* so the prime function is to support the product and/or product information for display, which the vast majority of candidates realised and were therefore able to arrive at appropriate responses for a two mark answer. They generally did this by covering the third bullet point in the mark scheme.

Some of the more able candidates started to consider difficulties incorporating a brand image and subsequent difficulties in obtaining client approval and therefore achieved higher marks. This question was a key differentiator for the higher grades.

*7 The debate regarding 'form versus function' has long been a discussion topic between designers.

(a) Explain the disadvantages of 'form following function' when designing a point of sale display.

(4)

The disadvantages of the 'form following function' could be the the display could potentially be boring and uninteresting, therefore not attracting the target market and consumer.



ResultsPlus
Examiner Comments

This was a typical candidate response awarded two marks for stating lack of aesthetic appeal (therefore not attracting the target market).



ResultsPlus
Examiner Tip

Remember a four mark 'explain' question needs two different responses with linked explanations.

- (a) Explain the disadvantages of 'form following function' when designing a point of sale display.

(4)

An example of form following function is the Philip Starck 'kettle'. The product has no proper use due to the fact of 'form over function'. The kettle is hard to use and should be handled with care after boiling water because of the material used, heats the whole kettle. This makes the product unfit for its purpose and ensure customer dissatisfaction.

Again, speed cars compared to jeeps/~~normal cars~~ are limited to tarmac road and has low seating/luggage capacity.



ResultsPlus
Examiner Comments

This response was awarded zero marks as the candidate has not answered the question. The answer does not focus on the design of a point of sale display and discusses other examples of form versus function.



ResultsPlus
Examiner Tip

Remember to read the question carefully and focus on the specific scenario. It is a good idea to underline the key words in the question. Revisit the question part way through your response to check your answer is relevant.

Question 7 (b)

The debate regarding 'form versus function' has long been a discussion topic between designers

(b) Figure 1 and figure 2 below show two different coffee tables

Candidates did very well on this question with over 50% achieving five or six marks. Candidates often made good use of visual clues in this type of question. Candidates who did less well tended to repeat one or two key points throughout their answers.

Evaluate how the designers of the two examples in figure 1 and figure 2 have considered form and function as part of their design ideas

Candidates were given credit for reference to form/function once in the correct context. This was an evaluation question covering two products so there was inevitably some comparison. In order to have achieved full marks candidates must have considered both designs.



Figure 1

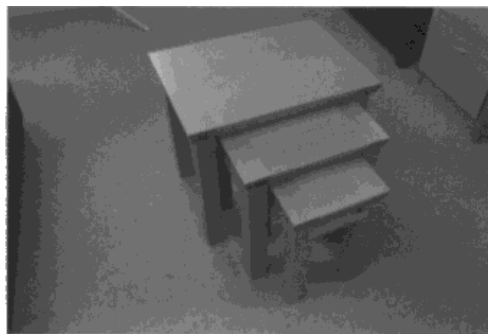


Figure 2

Evaluate how the designers of the two examples in Figure 1 and Figure 2 have considered form and function as part of their design ideas.

(6)

Both figure 1 and 2 have considered function as they have tables at 3 different heights so it can suit a wider range of uses. Figure 1 has considered form more than figure 2 as they have gone for a more expensive but weaker material for the table top in glass. Although it will clean easier and mark less so it does still consider function. Figure 2 has gone for a stronger wood material for the table top so it can withstand greater pressure and it also has legs on all corners which will make it stronger where as figure 1 has only 1 leg so it will be weaker on one side even though it is a metal leg. The biggest feature is the figure 2 design can be fully separated into 3 tables and they can be used individually which is more functional than figure 1 as it can't be separated and is just one big table. Figure 1 have also gone for a more unusual oval shape which may look nicer but is less practical than the smaller squares tables that can slide underneath each other.



ResultsPlus
Examiner Comments

This was a typical six mark answer that covered a range of responses from the mark scheme.



ResultsPlus
Examiner Tip

In this type of question the visual clues will help you formulate your response.

Question 8 (a)

(a) Evaluate the use of energy recovery from incineration following the disposal of waste

This question worked well as a key differentiator for higher grades. The modal mark for this question was one.

Candidates had good knowledge of waste disposal by incineration but that is not the focus of the question. The key focus is on energy recovery from incineration and does not need to cover issues surrounding the disposal of waste or reduction in landfill. The disposal by incineration may already be occurring. This question covers the additional elements of energy recovery.

This was an evaluation question and both advantages and disadvantages needed to be considered in order to achieve full marks.

*8 (a) Evaluate the use of energy recovery from incineration following the disposal of waste.

(4)

The waste can be burned for energy, however not all of it is something like car tyres or rubber produces toxic smoke when burnt, therefore this will be harmful to the environment and people nearby. It will reduce the amount of waste produced but increase the amount of carbon emissions ~~also~~ released which would be equally as harmful.

An advantage of this would be that it would reduce landfill and make room for houses or other things.

Incinerating the waste would still produce some waste so it will just go back to being landfill.

There are more efficient and more eco-friendly ways to produce energy such as solar power, wind power and by using bio degradable products like bio fuel.



ResultsPlus
Examiner Comments

This was a typical response that missed the point of the question and evaluated the incineration of waste and not the energy recovery following disposal of waste by incineration.



ResultsPlus
Examiner Tip

Remember to consider the key focus of the question.

Question 8 (b)

(b) Evaluate the impact of sustainable forest management

This question worked well for the full cohort with the distribution of marks following a normal distribution curve with a modal score of three.

Candidates these days often have a good grasp of sustainability issues so there were some good extended responses indicating knowledge of sustainable forest management.

This was an evaluation question so both advantages and disadvantages had to be covered for the awarding of the full four marks.

Carefully managing forests and ensuring that they are only used at a rate that allows ~~the trees~~ to regrow and replenish, means that the forest will remain sustained. It ensures that use of materials does not lead to deforestation which in turn prevents a number of problems. Deforestation would result in increased levels of CO₂ in the atmosphere as there would be no trees to take it up and therefore decreased levels of oxygen. Cutting down forests would also mean the extinction of some species that rely on the forest habitat. Communities who rely on the forests for work and their everyday lives would lose their way of life. Destroying the animals' habitats would mean that they migrate into human populated areas which ^{would} be dangerous for both humans and animals. The stability of many areas relies on the roots of trees and plants. Deforestation would lead to mudslides, land slides and numerous problems.

Ensuring that the forests are managed and use of the materials controlled will preserve and protect them for years to come.



ResultsPlus
Examiner Comments

This is a response that achieved six marks from a range of responses in the mark scheme.



ResultsPlus
Examiner Tip

Use additional answer booklet or sheets if you are running out of space.

Paper Summary

Based on their performance in this paper, candidates should:

- Focus on the specific requirements of the questions
- Respond appropriately to the command verb in the question
- Differentiate between industrial production systems
- Rely upon application to a greater extent
- Remember that graphs and diagrams can help when answering questions
- Remember that in evaluation type questions responses need to cover both benefits and drawbacks
- Use additional answer booklet or sheets if they are running out of space

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

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