



# Examiners' Report June 2015

# GCE Design & Technology 6RM03 01





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June 2015

Publications Code UA041257

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## Introduction

This year's paper did not differ in style or format from the previous year and consisted of 7 questions totalling 70 marks. As usual there was a mixture of question styles ranging from short, single sentence style responses to a double page essay based response.

In general more candidates appear to be planning their responses prior to starting writing. This, along with what seems to be better preparation is leading to much fuller and far more fluent responses and far fewer responses where the candidate repeats a single point several times and therefore fails to score further marks.

However there are still some candidates who are not attempting certain questions and centres should be reminded that questions can be set from every/all sections of the specification, so it is VITAL that every aspect of the specification is taught. Also centres are reminded that candidates should have knowledge of and the ability to apply all aspects of the specification in a range of contexts using written and/or sketched answers.

Some candidates still struggle to answer the question in a relevant manner due to misinterpreting the 'trigger' words used at the start of each question. These words are available in both the text book and the feedback meeting materials and should be used as part of the classroom teaching of exam technique in order to prepare candidates for the exam.

The positive aspects this year were:

- Most candidates attempted the majority of the questions, although some appeared to be 'educated guesses'.
- Candidates are answering questions more concisely.
- The use of bullet pointed answers helped many candidates to clarify their answers.
- The majority of candidates stayed within the clipped areas.
- The subject content appears to be taught in greater depth in more centres.
- Candidates from these centres are demonstrating an improved `understanding' of the subject knowledge
- However, there were still a few weaknesses again this year:
- Poor handwriting and grammar (this made some answers **very** difficult to decipher).
- Not reading and digesting the question **fully** before answering.
- Not understanding the basic examination terminology ('trigger' words).
- Answers that are not concise and go onto additional sheets and **very** seldom scored additional marks.
- The use of a conclusion which just **repeats** the points made in the answer.

#### Question 1 (a) (i)

This question was designed to elicit knowledge of the advantages of video conferencing and although this is now a relatively outdated term, the majority of candidates were able to apply their knowledge of more current technology e.g. 'Skype' to cover all the relevant answers.

(4)of communication as it cuts out travel times 1 Queker 2 Savet more the project first fiste 3 lun mile communitate Muy to US **Examiner Comments Examiner Tip** 1. Quicker way of communicating BP4 This question was well answered by the (1)2. Saves money BP9 (1)4. This majority of candidates answer is sufficient for BP4 but it has already been awarded

1 (a) (i) Give <b>four</b> advantages of video conference	tina.
	(4)
1 Saves Travel costs	
2 can show information and the internet	
3 can hold a video conterna with multip	he people all an Me and Id
4 casy to set up and use	
Results Plus Examiner Comments	Results Ius Examiner Tip
Some candidates combined 2 (or more) answers within the one response. This is not a problem as marks will be awarded accordingly	1. Save travel cost BP1 (1)2. Show information BP5 (1) - 'show' suggests visual images3. Multiple people BP2 (1) and all over the world BP3 (1) - award 2 marks even though both answers are in the same sentence.4. Easy set up and use would score under BP4 but full marks have already been awarded.

#### Question 1 (a) (ii)

This question was designed to elicit knowledge of the disadvantages of video conferencing, which again was done using their knowledge of more current technology e.g. 'Skype' to cover all the relevant answers

(ii) Give two disadvantages of video conferencing. (2) 1 Peorie chave camera Shyness and don't act themselves 2 Stable and religable broadband needed for video conferencing Laich isn't always aviable greas





1. Camera shyness BP4 (1)2. Stable, reliable broadband BP2 (1) enough to suggest that if not there will be problems. 'Isn't always available in areas' this would be correct for BP5 but maximum marks have already been awarded.

(ii) Give two disadvantages of video conferencing. (2) 1. The participants of the video conference have to be available to attend the video conference in like ematts. 2 You are not able to transfer files in a video conference **ResultsPlus Results**Plus **Examiner Comments Examiner Tip** This response shows only one correct 1.Participants have to be available BP6 answer (1)2. This is not strictly correct as data can be transfered and shown live on screen

#### Question 1 (b)

This question was designed to elicit an essay based response on why a company 'may' choose JIT. Most candidates answered this well and showed a good understanding of the concepts and their positive implications for the company. However some candidates spent a large proportion of their answer stating the negative aspects of JIT and why a company may choose NOT to implement JIT.

(b) Outline the reasons why a company may choose to implement a 'just in time' (JIT) manufacturing system.
- Martin Constant and Constant and Constant (8)
In JIT mo/lean many concruring system is where a comp-
any orders supplies for manufacture when it is required;
when a stock level is reached, manufactures may use this because.
• low storage costs money is saved on storage.
· less wastage, Boline wance of oursteeking.
eig me manufacturer has a reliable supplier
· quality of products is improved.
· mayery unlikely to overstock.
• nigher profit margins
· a way to control stock.
· less neuronatorial more space por other things rather than
a large warehouse and tilike an employee lange increasing
emoloure satisfaction

employee satisfaction.



This candidate chose to respond in a bullet point format which is fine so long as the bullet points are sentences and not just single words. Some of the phrases are very short and are close to being insufficient, but I feel there is sufficient knowledge shown over the ENTIRE answer to award the marks as shown.



(b) Outline the reasons why a company may choose to implement a 'just in time' (JIT) manufacturing system.

Just in Time manufacturing systems offer a range

(8)

of good and appealing reasons to a manufacturer for its implementation. Just in time reduces 2-12-00material by only ordering apply when its needed SIT can save potential storage costs by minimizing the amount of stock in storage which the manufacterwood have to pay for. As a result of putting less -demand on the row materials import, the process becomes more sustainable giving a good impression of eco-awareness . JIT can often lead to a Kanban mentalisty of pulling' products through manufacture as requested by consumers furthering the reduction of i sterici does have limitations and its disadvantages include high set up casts and a difficult environment workers due to the increased need of astoniation The importance of analysis of market and largel groups is crucial and any mistakes with regards to the analysis could lead b unexpected spikes in demand which supply cannot meet, reducing customer satisfaction and sales (loss in profit) which strains the Supply lines but can allo cause excessive stock problems the manufacturer was trying to avoid by not producing too much.



This candidate appears to have lost focus on the question and spent the latter part of the answer on negative aspects



reduces waste BP2 (1)

only order supply when it's needed BP1 (1)

save potential storage costs BP3 (1)

as requested by consumers BP8 (1)

The rest of the first paragraph are repeats.

The final paragraph loses focus on the question as it covers reasons why a company would NOT use JIT.

#### Question 2 (a)

This question elicited a large number of the given responses in the mark scheme and many candidates scored well. Clearly this topic is being taught well in most centres and candidates are able to recall their knowledge well

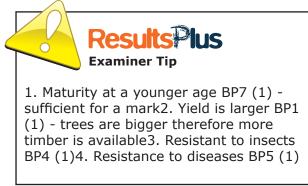
There were some candidates who listed 'bigger/taller/wider' as separate points as well as listing a number of 'faults' as different points. This is an important point as A2 level requires a more in-depth knowledge.

2 (a) Genetic engineering can be used to change the properties of timber.

Give six advantages of genetically engineered timber.

1	The	finbe-	reache	D	riby	at	٩	
	lower	age.						
2	The	yeild	13	larger,				
3	It	can be	resista	ut to	insec	ts.		
		<i>C</i>						
4	T.	can be	jer	istat	10	Certo	<u></u>	,

Results Plus Examiner Comments This candidate scored well on the responses given but clearly had not got enough information to complete the task



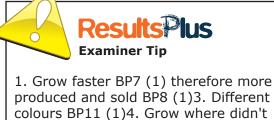
(6)

2 (a) Genetic engineering can be used to change the properties of timber.

Give six advantages of genetically engineered timber.

(6) more limber produced and he resistant to disease ... wi Cau divans et sold for COU have colours Can or higher prices. oest DUIDOCES before + sourcine in he engineered to grow where didn't i.e. cold or hot or wetord different conditions imperfiction, Fewer s and 5 Engineered hewer ion of wood and & combine with properties. wood with contined other woods loget bether

Results Plus Examiner Comments Some candidates like this one gave justifications of some points which will be credited as TWO marks (if they are both correct) as this is a 'give' style question and requires no justification/ example.



before BP17 (1)5. Fewer imperfections BP2 (1) more structural strength BP10 (1) - even though this answer is a 'therefore' from the previous answer it hits BP10 and is a correct result of the previous answer

### Question 2 (b) (i)

This question elicited a range of responses, but many candidates were clearly unsure about the properties a foamant brings to a plastic and numerous answers were based on other additives.

(2)

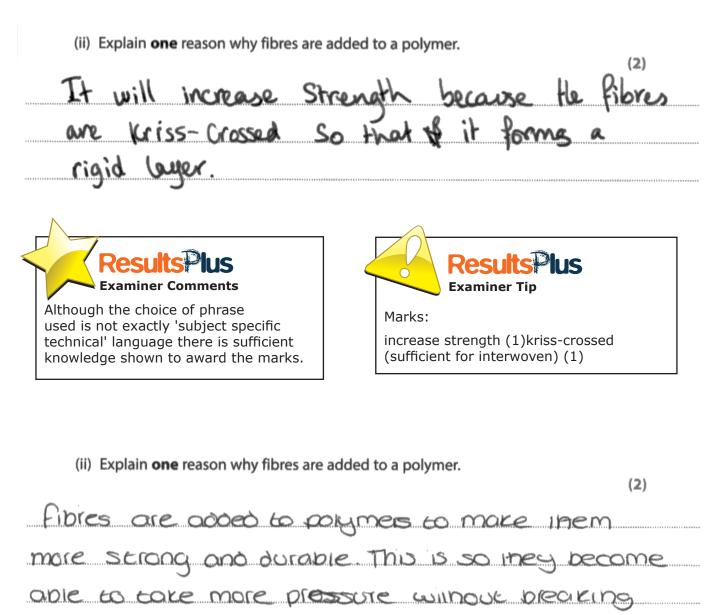
- (b) Additives are used to change the properties of polymers.
  - (i) State **two** changes in the properties of plastic that occur when a foamant is added.

1 the plastic with bec	ome much move
Buyent with a for	in all
2 The plastic becomes	lighter as the Gament
Theoretes air subbles into	the plastic.
Results Plus Examiner Comments	Results Ius Examiner Tip
This answer was clear and shows the 'improved' properties	1. More buoyant BP5 (1)2. Lighter BP6 (1)
	Too many answers just stated the properties i.e. buoyancy or strength, whereas the question says 'state two CHANGES in the properties'. It is therefore important to add increased buoyancy or decreased density or more

buoyant in order to score the mark

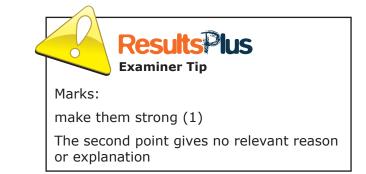
#### Question 2 (b) (ii)

Most candidates score a mark for strength but few failed to pick up a relevant explanation



Used for.

Results Plus Examiner Comments This response showed a reasonable understanding but didn't gain the second mark as there was no relevant explanation



#### Question 3 (a)

This question was designed to elicit answers about the advantages of offshore manufacturing from the multi-national company's perspective. Far too many candidates got caught up with giving advantages to the hosting country or even disadvantages to the multinational company or hosting company.

- 3 Multinational companies often use 'offshore' manufacturing.
  - (a) Outline the advantages of 'offshore' manufacturing to multinational companies.

attained because bi can Chaper prepared campand 225 RMA companies ICI RUL ca a More Kaw materiale ara m 23 (the bar Company, PMSer CL.

#### Results Plus Examiner Comments

It is very important to focus on the wording of the question and also to be specific when describing something. A phrase like 'legislation is less' is far too vague for A2, especially as there are four distinct versions of legislation in the mark scheme (BP6, 7, 8 and 10).

Some candidates underline the key words in the question in order to help them focus.



cheaper labour BP1 (1)

more people are prepared for lower wages BP2 (1) the phrase 'MORE people' is enough to suggest a greater availability

(6)

legislation less strict - this is too vague as it could fit BP6, BP7 and BP8.

land is cheaper BP4 (1)

cheaper resources/raw materials BP9 (1)

no need to pay import tax BP8 (1)

- 3 Multinational companies often use 'offshore' manufacturing.
  - (a) Outline the advantages of 'offshore' manufacturing to multinational companies.

(6)CO tio. 5 25 se Da  $\bigcirc$ the 255 ω くで a ( 65 10 d are can Less d ĊĂ as 5 e e 57 es 0 C61 US **Examiner Comments Examiner Tip** 

Á question like this is best answered by noting down as many points and justifications as you can and then making sure you pick (in this case 6) relevant points, otherwise the repeated justifications, although they may well be correct have already scored the mark and won't be credited again reduces manufacturing costs BP1 (1)

factories close to raw materials BP5 (1)

The rest of the answer is just repeating consequences of this proximityThe final sentence is too vague for BP3

### Question 3 (b)

This question was designed to elicit answers about the advantages of offshore manufacturing from the host country's perspective and was answered far better than the previous question, with many candidates stating more than 4 relevant points in well-written answers.

(b) Describe the advantages to a developing country of hosting 'offshore' manufacturing.

(4)
A develophy country will benifit from increased investment
and re-generation of local areas, helping to impre infrastructor
and primate forthe development. Another advantages of hours
off shore manufacturing is increased comproynant as jobs an
provided by multi-radional comparies, leveling & neveral proms
for indigeners people who wer previous unemproved. Less developed
countries also tempt from technology transfer, as the new
monstanting presses bring new technolog in ber duraged
Counties by your access to them. Furtherman, how they
can ben't it from exparing none goods as it bring in more
foreign current and helps to improve the Balcace of Payments
of the given course hour cauty.



Similar to Q3a it is important not to repeat similar information like 'increased investment' and use it to say 'the country benefits, the cities benefit and the individuals benefit' as this will only score 1 mark



increased investment BP6 (1)

regeneration of local areas, helping to ???? infrastructure BP4 (1) IF a word is difficult to read, credit will be given if the rest of the answer gives sufficient info (which this does).

1.43

increased employment BP1 (1)

bring new technology into - is a repeat of BP4

can benefit from exporting and bringing in foreign currency is a repeat of BP6

(b) Describe the advantages to a developing country of hosting 'offshore' manufacturing.

(4) DIOULDING tages include loads of 200 100 0 Man 000 000 0.000 3051 economic 200 9104 നപ Compan a Carr DODUAtion Inkl ec all oto Ne sour formere 22 ONU 0. noves na COURS local Droduce ourism to/ a example a 11 101 COMDON

# Results Plus Examiner Comments

Although this answer includes a number of points which are inaccurate or not directly relevant to the question it contains four relevant points. Some points could be better expressed and the candidate uses different words than those in the mark scheme, but it is clear from the response that the candidate knows sufficient knowledge on the subject to score full marks



providing loads of jobs BP1 (1)

boost countries economy BP6 (1)

different lifestyle to countries population BP7 (1) a little vague but sufficient

Improves image of developing country BP5 (1) image is enough for reputation

#### Question 4 (a)

This question was focussed on 'recycling' yet far too many candidates gave responses that were based on ALL of the 6 Rs i.e. reusing, replacing etc. Generally, sound knowledge shown though many missed the obvious use of recyclable materials. Too many candidates included re-use and biodegradable materials, indicating a lack of any real understanding. However, many responses were explained well, possibly highlighting genuine concern about recycling issues.

**4** (a) Recycling materials plays an important role in preserving the world's natural resources.

Outline how products can be designed for recycling. way that products can be designed for recyclin 3 to make them allows for hove compressable which more to be vecyche at the Goe Cola totter one the Come up with a design for Square bottles will be able to be compressed about a quarter at their origi size allowing for more to be packed into bayes for the recyclin plant hey can also be designed for way the energy instead Screws they could chip together and a part This would under 12 easier when The different maseriad **2 I I Examiner Comments Examiner Tip** This response is almost totally focussed on The first part of this answer focusses on 'recycling' being a way to return products ways to minimise size to make transport and not actually recycling the materials in TO the recycling plant more efficient, NOT the products and the inherent problems actually recycling it clip together and apart BP2 (1)

4 (a) Recycling materials plays an important role in preserving the world's natural resources.

Outline how products can be designed for recycling.

Products designed 6 use a to dicicle ù en Mar 99 of a hat destris is fermation Con 0 u RAN Dece Sur Ło ac CONSI ase. materials that advantage 01



Although the text is a little simplistic in places, the overall understanding is conveyed in a way that shows the candidate understands the concepts and their impact on the process of recycling



use a single material BP3 (1) - enough for understanding of minimum materials used

(4)

product can contain information BP5 (1) a little vague but reference to info suggests coding, either for the recycling company OR the consumer so they bother to recycle

easily disassemble BP2 (1)

materials that can easily be recycled BP1 (1)

#### Question 4 (b)

This question was designed to elicit answers where candidates could show their knowledge of a design philosophy and relate it to the design of a product from that era. It was clear from the responses of many candidates that they were not able to do this well, tending to describe the chair, rather than how its design had been influenced. Few candidates made reference to the product being DESIGNED specifically for mass production and assembly. Also the majority of candidates just used the phrase 'form follows function' (I assume because the chair looks very padded and comfortable so the function must have been the more important factor) without any clear understanding that this product was designed to be made in a certain way so FORM was the driving factor.

(b) One influence on Art Deco styling was the 'celebration of the machine age'.

Figure 1 shows an example of Eileen Gray's Bibendum chair.



Figure 1

(4)

Outline how the philosophy 'celebration of the machine age' influenced the design of the Bibendum chair.

This philosophy influenced and due to mechines cllowing more Freedom of design & cllowed new produces to be made. The stend on the battom originally would not have been done but by excrusion a machine operation it could be ccompleted. The perfect curve could have been clope by head but a mechine would have been used to bened the metcal who an ideal curve for the chair. The leather on the cheir would have been hard to statch by head but introduction of serving machines chosed it to be carried one more easily. It can also produce the produce quicker & chow for mass production due to the machines producing it.



This response shows a very limited understanding of the concepts and tends to be unfocussed in its approach



The section of text which scores a mark is 'the stand on the bottom would not originally have been done, but with (extrusion) a machine operation, it could be done' BP7 (1) - This is a somewhat vague answer but enough understanding (even though extrusion is probably not the 'best' method) to show mechanical techniques being used.

Also 'produce the product quicker allow for mass production' - again this is vague but this time there is NOT enough understanding to show the product is DESIGNED for mass production BP5. However this point WOULD have scored a mark for BP7 but that has already been credited earlier in the answer (b) One influence on Art Deco styling was the 'celebration of the machine age'.

Figure 1 shows an example of Eileen Gray's Bibendum chair.



Figure 1

Outline how the philosophy 'celebration of the machine age' influenced the design of the Bibendum chair.

Het Veco used more man made material than previously seen in the هم Biberdum chars with alluminium The legs. omate decoura necessar basic machine porceses berane nore Lavorrable machine age" celebration of the philosophy inspired design that as more mass would have been ho Sea SI thed and (he wowle leas bent. been Machino. Machine production made it MOR the **8**  $\rho e o p$  (Le. (Total for Question 4 = 8 marks) accessible



This response covers a wide enough range of concepts, despite not being worded all that clearly in places, to score full marks



more man made materials BP2 (1)

ornate decorations removed BP8 (1) this shows sufficient knowledge that the overdecoration was removed in favour of clean lines

inspired a design that was more mass produceable BP5 (1)

the legs would have been machine bent BP7 (1)

#### **Question 5**

This question was designed to elicit answers which gave positive and negative characteristics of the use of H.E.P.. It was a well answered question. Quite a number of candidates had a wide ranging knowledge of these concepts and gave excellent answers, scoring highly and displaying a good depth of knowledge. Some candidates described wave power etc. although they did pick up marks on common responses e.g. no emissions.

Evaluate the use of hydro-electric power (HEP) to generate electricity.

Evaluate the a	se of flyaro ciccule p			currenty.	
Hydro-	Cecuric Cecuric	Power	3	floct 4 ces	2000
emissio	as during	ies c	·.~	i- opera	Wors FL
Ontez	emissions	Produced	ure	ther O	-es during
the n	an area etaring	0- :	16	÷5-600.	At can
Provance	enouga	Poner	60	Supping a	5-411
town,	The 45	c or-	10	is ea	sier (+o
fredúci-	it lact	r Lin	6e	e no mu	Later
1-0 Sc	APPly electr	icing	<u> </u>	Leter	(9- 4
Stored	habit neele	L.	*******	****	
444 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Peeee ee e		**********	44441155555555555555555555555555555555	
However	声	is	104	4	reliance
Source	cs #	in the	Summer	monte	their
ruy 6c	litue	rain (all	(-6	SUPPY	water to
<i></i>	Dums need	(-o 6 c	C1	eater	Lich Floods
lurge	ampuni-s	or lan	d a	nd and	er rains by
Lana Scape	and hird	i.e. T	6:5	Syst-en	<u>`````````````````````````````````````</u>
Very	expensive	(-) - St-611	. er	ergy is	vers
hare to	Score	20 11-	0.0.0		SC 5 1-01
	it be				

5 Water can be used as a source of energy.



This answer covers enough points correctly to score 8 marks but the candidate comes close to being too vague at times with their answers. It is important to use concise and technical descriptions to guarantee marks.



zero emissions BP2 (1)

only emissions are produced are during manufacture BP21 (1)

The last sentence in the first papragraph is vague - easy to predict if there will be enough water as it can be stored. This can be credited under BP9 (1)

not reliable source as in summer there may be little rain BP12 (1)

created with flooding large areas BP15 (1)

ruins the wildlife BP19 (1)

Expensive to install BP11 (1)

if demand increases won't be able to fulfill like fossil fuels BP14 (1)

5 Water can be used as a source of energy.

Evaluate the use of hydro-electric power (HEP) to generate electricity.

electric ponenot as Sustairable is thought. or aco, Con 1~ -iendly 6.3 elect-scity 10 Cebuild Luilt [ca 5 ore 01 9 cretc which 0  $\mathcal{O}$ un-environcetally Jee-c must ÛS Wat The. all e-ussie achi-ag o- site digge-s trudes ucll all th wed -unspu-45 the material. Once the dam 35 reeds to aren Schold it lus Se lood Causes the destruction A a babotato will meniz Lave ove some will be tilled. Hab Lave ti people 50mc wil le-c depending Ù3 oue tl d e 0-Build. Hoveveall these nucts 0out reighed by the potential be-Ьe E beig creute electrictz able 01 like truditional polution stations



This response covers four points but the rest of the answer is general and tends to overstate points which have already scored the mark



dams made of concrete which is unenvironmentally friendly BP21 (1) descruction of animal habitats BP19 (1) some people will have to move BP15 (1) without generating pollution BP2 (1)

#### Question 6 (a)

This question was designed to enable the candidates to make a comparison between repairing and replacing, however a number of candidate's answers were focussed too much on personal opinion/experience and missed the point of the comparison. Far too much emphasis was given on consumerism and built-in obsolescence. A lack of planning really did let candidates down as there were many answers which just repeated the same point/ points.

· (,	(6)
Repair Versus replacement	is the issue of likether
	eparta device or iten or
1	me From a consumés
	in Seens like a more
	et an replacement as
1 0 -	ce would be the \$
	the argument. This issue
	e to built in obselesance
	product is designed to
	length of the an example
	phone trade as fre
	rge more quickely los the
	monner to replace a product
this means having to	buy another one at
ful price Whereas	the Cheaper alternative 13
A	with the predict which
13 more likely to	hoppen, title
ResultsPlus	ResultsPlus
Examiner Comments	Examiner Tip
This example shows a lack of planning and therefore a good deal of repetitiveness creeps into the answer	repair seems more chosen as the cost difference would be an implication BP2 (1) - even though this answer does not specifically state it is cheaper to repair, the inference is clear.
	The rest of the answer just repeats and gives examples

\*6 (a) Discuss the issue of 'repair versus replacement' from a consumer's point of view.

(6)As a consumer there can be a few att aditudes from this topic. The first will consider cost. when you have a product that appears proken, you will want to repair it rather than replace it in order to save money. This is due to the Sact that a Single component is cheaper to make than the whole thing / Product. This will result in it being chapper to repuir. However if the ustomer is required to repair the product themselves they muy consider replacement for the following reasons. Speaking from experience, my phone was out of warranty and needed to brave its screen replaced. The screen was cheap, however to install it was complexated. I seen the risk of preaking it so and understood that this would mean I would have to replace it anyway. replacement from a consumers or point of where is also going to be more convient. It would be much quicker to get a product which is makedy and just needs Sold than to wait for your product to be sent away, looked at, then returned. Assigned However a consumer who is environmentally aware may resist this convience as the implication is that the old Product will normally be thrown out. It is also more sustainable to reduce waste (and by repairing you rather than replacingly you are doing this) as the more maste, the more landfill required and even if it awas to be recycled you are still needing more energy (and thus more emissions) to recycle the whole product rather than one part



This is a good answer which clearly covers a number of salient points and the candidate expresses them well



repair in order to save money BP2 (1)

to install it was complicated BP10 (1)

replacement was going to be convenient BP11 (1)

it would be much quicker to get a product than wait for yours to be sent away BP12 (1)

environmentally aware may resist convenience BP7 (1)

## Question 6 (b)

This question was designed to elicit answers which covered the advantages to a company of carrying out a LCA.

There were a significant number of candidates who either didn't know or didn't understand that LCA is linked to sustainability. They often described a product's life or how it is manufactured. However many candidates were able to access good marks due to the broad nature of the topic.

Many candidates missed out on marks by listing only what an LCA could show rather than what could be done to make improvements with the data gathered from the LCA.

(b) Explain how a company may benefit from carrying out a life cycle assessment on its products.

Life cycle assessment is a technique used to evolute the effect of a product - it's participing from cradice to prove . A company casia benecit from this as it can be used to defermine the existing carbon Cootprint of the product then from his he company caua develope methods of reaucing it. It can also help to work out how to reduce the amount of materials they are Using in kar heir products + packaging. By using Me life acce assessment it could help a company reduce it's environmental impacts Conraugh this key cauce use he prapproach to market their products. Mey cavicy also reauce heir corbon alloxide emissions. Finally it cash be used to help increase he efficiency of Le manufecturing process



This response covers sufficient information in a clearly defined way to score full marks



cradle to grave BP1 (1) reduce amount of materials BP3 (1) reduce its environmental impact BP2 (1) use the 'green' approach to market their products BP7 (1)

(4)

(b) Explain how a company may benefit from carrying out a life cycle assessment on its products.

A company can save costs by carrying out on LCA on its products
as estatement as it can analyse the dupper cheaper methods of
producing it it will not last very long.
increased customer san's faction as the company will attempt
to produce products with a longer whe span and customers
will be satisfied with a product that lasts long a sustainable
Therefore, the company will have a better reputation for higher
quality products.

(4)



This response could potentially have missed out on some marks. Some of the responses appeared to be heading down the correct route (i.e. the point about length of life – BP12), but ended after only a vague description. However this candidate did enough to pick up the full marks in other answers.



save costs BP5 (1)

can analyse cheaper methods of producing it BP4 (1)

'it will not last very long' is not enough for BP12

increased customer satisfaction is not the same as improved company reputation BP15 (although this is awarded later)

will attempt to produce products with a longer life-span BP13 (1)

better reputation BP15 (1)

#### Question 7

This question was based on the advantages and disadvantages of QRM. Many candidates covered a number of the salient points but few managed to score full marks. It was clear from a number of responses that a number of candidates were a little mixed up with what QRM entails and the fact that it can encompass a wide range of other manufacturing strategies e.g. JIT and CIM as PART of the process

\*7 Many companies use quick response manufacturing (QRM) as a strategy to be more competitive.

Evaluate the use of quick response manufacturing (QRM). Quick response manufacturing is an affective mathed get products made & to consumers as doot as possible. It was lots of sub processes such as "inst in time" manylacture which means that companies always have the required resources & material QRM isn't a actiones production method, as it's purpose is to neet demands efficiently, if & when they come up. Products can be produced at a high rate using all manufacture so that different parts of the product are being produced simultanianshy, meaning that very little time is between starting manufacture & assembling the components. With overlapping processes, huge lengths of time are removed from production which gives companies a good competitive edge over companies who perform one process at a time Using quick response monufacturing as a competitive strategy is a good idea as consumers will be tikely to use the some company again due to a quick delivery of a product from start to finish. Customers may also be more likely to

a company to others if reconnerd then ectively produce their goods One thing companies must lao. 21.02 vot 40 end up Dradi 10 prood U21L rate 1 which don open riconrow se ~~~ 9 checks ah col important ۹٨ balance +0 be Cal 10 ghick response many Competitiveli

**Examiner Comments** This response unfortunately tended to hit only the most basic concepts and didn't cover them in much details, but sufficient to score the 4 marks awarded



BP1 (1)

JIT BP8 (1)

meet demands if and when they come up BP2 (1)

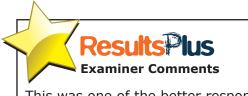
gives company a good competitive edge BP6 (1)

\*7 Many companies use quick response manufacturing (QRM) as a strategy to be more competitive.

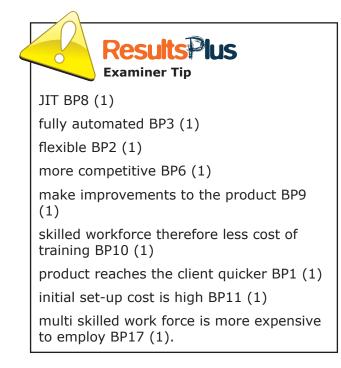
Evaluate the use of quick response manufacturing (QRM).

(10)companies the also independent QR is time l sucten nelt N rebro or a 200 is less money component the lest muste ie ports unsed warehou as De hill doch 0 land ಲ managemen solhare m quicker Uan man rest also allows the con product bouchle i to aure Cherner storage So anout of east uniped NP. 1001 erefeture the princip sared car orderro mani New parts a prancepa che ردما o ti conceptive ho more as COL 1 980 very quilly alla MO 25 (000 without inforements to the produ d al ma a mansure terne and manufacture nanulachire ra row Ja ange moul machines 10 Ma the workhove Duid DL is a spent on training ذهو money Dornh these hanges. Ы Oa D.C. as it enables tlem Sa Ur/adion B Change  $\alpha$ 

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This was one of the better responses which was clearly planned and the candidate understood the concepts and was able to convey them and the resultant characteristics of QRM.



## **Paper Summary**

Based on their performance on this paper, candidates should:

- Make sure that they understand the trigger words in the question.
- Avoid unstructured answers. The use of bullet pointed statements, even in extended evaluate type questions, can help **some** candidates to score better marks.
- As questions will come from **all** parts of the specification ensure that the candidates have covered **all** of the specification.
- Make sure that candidates use technical language where appropriate if at all possible, candidates should **not** go outside of lined area provided.
- Candidates should think/plan **before** answering
- Candidates must justify/give examples for questions which require them
- Where there are generally **two** lines given for an answer, one mark per line awarded.
- There should be sufficient space given in order to score **full** marks.
- If a candidate is word processing their answers, they should structure them so that they are in the same format as the question paper i.e. if there is a 'give **four**' type of question, they should put their answers on four **separate** lines.
- If an answer exceeds the space given, candidates should put some sort of indicator for the examiner.
- Candidates who plan their answers should do so on separate pieces of paper rather than using a large portion of the answer space for this purpose.
- **HOWEVER,** candidates should **NOT** attach/hand in their sheets of rough working (or any other paper which does not contain specific answers) as this makes it impossible to scan the papers in the normal way.

# **Grade Boundaries**

Grade boundaries for this, and all other papers, can be found on the website on this link: <a href="http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx">http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx</a>





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