

# Examiners' Report

## Summer 2010

Principal Learning

**Engineering**  
**EG208 Exploring Engineering Innovation, Enterprise  
and Technological Advancements**

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## 1. PRINCIPAL EXAMINER'S REPORT - Level 2 Unit 8

### General Comments

Overall, the paper produced a good range of responses. Lower ability candidates often gave generic responses to questions that gained limited marks. Some candidates often repeated answers or phrases which limited their access to some marks. The more demanding questions at the end of the paper provided candidates with an opportunity to expand and apply their knowledge and it was pleasing to see some good responses. Candidates would benefit from being taught examination skills and techniques as often they did not read the questions properly and questions were not answered using the 'state, describe, explain' method.

**Question 1** is aimed at (a) identifying types of intellectual property, (b) identifying a specific intellectual property and explaining why it is used (c) identifying copyright and stating where it can be found (c)ii describing simple methods of proving ownership.

Part (a): the majority of candidates correctly associated the different types of intellectual property with their descriptors.

Part (b): many candidates incorrectly identified which intellectual property should be chosen based on information in the pre-release.

Part (c): many candidates correctly identified the copyright symbol but some candidates were unable to correctly state where it might be found on the product.

Part (c)ii: many candidates were unable to give valid methods for proving ownership. Typical correct responses included 'sign and date' and 'post to yourself'. Generally poorly answered but better candidates would score full marks.

**Question 2** is aimed at (a) raising finance, (b) development, (c) research.

Part (a): this question was answered poorly with many candidates scoring at less than half marks.

Part (b): a significant number of candidates scored full marks for this question.

Part (c): Borderline candidates would typically score 2 or 3 for their responses. Responses at this boundary would identify a test but not describe or expand.

**Question 3** is aimed at testing knowledge of material identification. The questions were set in the context of the pre-release.

Part (a): This was generally answered well by most candidates.

Part (b): This was disappointing. Candidates had little, if any, knowledge of material forms even though there was a similar question last series.

Part (c): most candidates were able to match the property of a material to the description given.

Part (d): The topic of this question is regarding the process of annealing, which is an engineering process that candidates would cover within the specification, however not specifically within this particular unit. In order to ensure that no candidates were disadvantaged by the question, an adjustment was made to the candidates' marks.

**Question 4** is aimed at being able to identify, select and explain advantages and disadvantages of materials.

Part (a): Candidates were generally able to state suitable material properties for the feed hopper. Answers included "strong", "rust proof" and "non-toxic".

Part (b): The majority of candidates were able to give a suitable material but the weaker candidates would state generic terms, such as, "plastic/polymer" which did not access marks.

Part (c): This proved to be very accessible to candidates. Candidates were able to give appropriate advantages and disadvantages.

**Question 5** is centred around the environmental impact of the Cattle-fed product.

This question was answered extremely well and significant numbers of candidates gained high marks. In part (b) some marks were not accessed as candidates were not aware of how to evaluate.

**Question 6** is aimed at comparing and contrasting two different sustainable sources of electricity generation as well as identifying how energy consumption can be reduced.

The majority of candidates sitting the examination paper attempted the final questions. This is pleasing as it is good exam technique for candidates to attempt all questions. Many candidates were able to gain good marks for this question with responses which showed a good level of general knowledge about sustainable issues.

## 2. STATISTICS

### 2.1. Level 2 Unit 8 Exploring Engineering Innovation, Enterprise and Technological Advancements

	Max. Mark	A*	A	B	C
Raw boundary mark	60	53	44	35	26
Points Score	10	8	6	4	2

#### Notes

**Maximum Mark (raw):** the mark corresponding to the sum total of the marks shown on the Mark Scheme or Marking Grids.

**Raw boundary mark:** the minimum mark required by a learner to qualify for a given grade.

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