

## **Mark Schemes for the Units**

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**January 2010**

**H810/MS/R/10J**

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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## Principal Learning

### OCR Level 2 Principal Learning in Engineering H810

#### MARK SCHEMES FOR THE UNITS

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## F548 - The Engineered World

By nature of the assessment criteria and the type of questions a definitive marking scheme is not available.

### Question One

- (a) **“Please identify an engineering achievement that you have researched.”** [1]
- (b) **“Explain any economic effects which have resulted from this engineering achievement.”** [9]
- Total [10]**

Band 1 Limited explanation – award one mark for identifying an engineering achievement and up to two further marks for relevant points about economic effects that have resulted from this achievement.

Band 2 Adequate explanation – award one mark for identifying an engineering achievement and up to five marks for including depth or breadth regarding the economic effects that have resulted from this achievement.

Band 3 Detailed explanation – award one mark for identifying an engineering achievement and up to nine marks for including clear and logical examples of the economic effects that have resulted from this achievement.

Depth: Expansion of a single social effect.  
Breadth: Expansion involving multiple economic effects.

### Question Two

- “Please tell me about any human issues which may have driven the development of the engineering achievement you have researched.”** [10]

Band 1 Limited explanation – award one mark for identifying a single human issue and up to two further marks for relevant points.

Band 2 Adequate explanation – award up to six marks for explaining at least two relevant human issues in depth or breadth.

Band 3 Detailed explanation – award up to six marks for explaining at least two relevant human issues and up to a further four marks for including logical and relevant supporting evidence that demonstrates depth and breadth.

Depth: Expansion of a single human issue.  
Breadth: Expansion involving the linking of human issues with other issues eg political, social and economic effects of human issues.

**Question Three**

**“Please tell me what you have found out about a specific engineering professional body”.**  
[10]

Band 1 Limited information – award one mark for identifying an appropriate professional body and up to a further two marks for relevant points about the professional body.

Band 2 Adequate information – award one mark for identifying an appropriate professional body and up to a further five marks for explaining the work it does.

Band 3 Detailed information – award one mark for identifying an appropriate professional body and up to a further nine marks for explaining the work it does and outlining the merits of membership. Responses should include logical and relevant supporting evidence.

**Question Four**

(a) **“Now, please tell me which three engineering sectors you have studied.”** [1]

(b) **“Describe the job role of a professional person within one of these engineering sectors”.**

[9]  
Total [10]

Band 1 Limited information – award one mark for stating a sector and up to two further marks for a relevant point relating to a professional person.

Band 2 Adequate information – award two marks for stating at least two sectors and four further marks for a response giving information with depth or breadth about a professional person.

Band 3 Detailed information – award two marks for stating at least two sectors and up to a further eight marks for a response giving information with depth and breadth about a professional person including logical and relevant supporting evidence.

Depth: Focussing on a single role in a single sector.

Breadth: Multiple roles in a single sector or, a single role in more than one sector.

**Question Five**

**“Now, please choose a material that you have studied and explain how engineering is important in conserving your chosen material”.**

[10]

Band 1 Limited explanation – award one mark for identifying a material, and up to two marks for broadly stating how engineering is important in conserving materials.

Band 2 Adequate explanation – award one mark for identifying a material and up to five marks for a response which includes relevant supporting examples of how engineering considers conservation issues regarding materials.

Band 3 Detailed explanation – award one mark for identifying a material and up to nine marks for a response detailing logical and relevant supporting examples of how engineering considers conservation issues regarding materials.

**Question Six**

**“What can you tell Mike about his responsibilities as a young person using a machine and the responsibilities of his employer”.**

**[10]**

Band 1 Limited explanation – award one mark for a basic definition of the duties of an employee, one mark for the duties of an employer, and one mark for making reference to legal responsibilities.

Band 2 Adequate explanation – award one mark for a basic definition of the duties of an employee, one mark for the duties of an employer, one mark for making reference to legal responsibilities and up to three further marks for a response which includes relevant examples.

Band 3 Detailed explanation – award one mark for a basic definition of the duties of an employee, one mark for the duties of an employer, one mark for making reference to legal responsibilities and up to five further marks for a response which includes logical and relevant examples. Additionally, two marks for reference to appropriate legislation.

# Grade Thresholds

OCR Level 2 Principal Learning in Engineering H810  
January 2010 Examination Series

## Unit Threshold Marks

Unit		Maximum Mark	A*	A	B	C	U
F548	Raw	60	48	36	24	12	0
	Points	10	8	6	4	2	0
F549	Raw	60	48	36	24	12	0
	Points	10	8	6	4	2	0
F550	Raw	60	48	36	24	12	0
	Points	10	8	6	4	2	0
F551	Raw	60	48	36	24	12	0
	Points	10	8	6	4	2	0
F552	Raw	30	24	18	12	6	0
	Points	5	4	3	2	1	0
F554	Raw	30	24	18	12	6	0
	Points	5	4	3	2	1	0

## Specification Aggregation Results

No learners aggregated this series. Aggregation is not available for this specification until June 2010.

For additional guidance on the points awarding system, please refer to the Admin Guide for Diplomas at:

<http://www.ocr.org.uk/administration/documents.html?section=general>

Statistics are correct at the time of publication.

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