



General Certificate of Secondary Education
2015

Centre Number

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Candidate Number

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Engineering

Paper 1
Assessment Unit 3
assessing
Engineering Technology



GEE31

[GEE31]

TUESDAY 19 MAY, MORNING

TIME

1 hour.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.
Answer **all ten** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 80.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each part question.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
Total Marks	

(b) All the products below belong to a manufacturing sector.

Circle **two** products shown below that belong to the engineering fabrication sector.

You **must** only circle **two** products. If you make a mistake you must clearly show which two products you have chosen.



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[2]

Examiner Only	
Marks	Remark

2 Answer all parts of this question in the spaces provided below.



Examiner Only	
Marks	Remark

Question	Answer
<p>(a) Identify the joining process shown and give a practical example of where it could be used.</p>  <p style="text-align: right; font-size: small;">© Thinkstock</p>	<p>Joining process</p> <hr/> <p>Use</p> <hr/> <hr/>
<p>(b) Name the tool shown below and state one use for it.</p>  <p style="text-align: right; font-size: small;">© Thinkstock</p>	<p>Name of item</p> <hr/> <p>Use</p> <hr/> <hr/>
<p>(c) Identify the cutting tool shown below and give one safety precaution that should be observed when using this tool.</p>  <p style="text-align: right; font-size: small;">© Thinkstock</p>	<p>Name</p> <hr/> <p>Safety precaution</p> <hr/> <hr/>

[2]

[2]

[2]

Question	Answer
<p>(d) Identify the joining process that uses the tool shown below and give a practical example of where it could be used.</p>  <p>© Thinkstock</p>	<p>Joining process</p> <hr/> <p>Use</p> <hr/> <hr/>
<p>(e) Name the tool shown below and state one use for it in an Engineering room.</p>  <p>© Thinkstock</p>	<p>Tool</p> <hr/> <p>Use</p> <hr/> <hr/>

[2]

[2]

Examiner Only	
Marks	Remark

(c) Describe **two** difficulties a manufacturer might encounter when trying to implement modern materials and modern technology into a company's production line.

1. _____
_____ [2]

2. _____
_____ [2]

Examiner Only	
Marks	Remark

8 (a) Describe, giving **one** example, how the workforce has been affected with the introduction of new technologies.

_____ [2]

(b) Describe, giving **two** examples, the potential benefit to the environment of using modern technologies when designing and manufacturing engineered products.

1. _____ [2]

2. _____ [2]

(c) Describe **two** cost factors that should be taken into account before introducing modern technologies into an engineering environment.

1. _____ [2]

2. _____ [2]

Examiner Only	
Marks	Remark

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(a) Describe **one** different quality control check that could be used for each of the engineering processes stated below.

(i) Turning of a steel rod

[2]

(ii) Surface finishing after milling

[2]

(iii) Soldering on a circuit board

[2]

(b) Outline **one** reason why quality control should take place during the manufacturing process.

[2]

Examiner Only	
Marks	Remark

10 The introduction of new technology has brought a number of advantages and disadvantages to the engineering sector.

(a) Describe **two** ways in which the use of new technology has improved the design and development of products in the engineering sector.

1. _____
_____ [2]

2. _____
_____ [2]

(b) Discuss the implications of the introduction of new technologies on the assembly and dispatch of engineered products.

_____ [6]

THIS IS THE END OF THE QUESTION PAPER

Examiner Only	
Marks	Remark

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