

**Wednesday 16 January 2013 – Morning**

**GCSE MANUFACTURING**

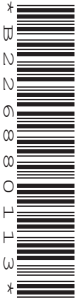
**B232/02** Manufacturing Processes

Candidates answer on the Question Paper.

**OCR supplied materials:**  
None

**Other materials required:**  
None

**Duration:** 1 hour



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**INSTRUCTIONS TO CANDIDATES**

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- Your Quality of Written Communication will be assessed in the question marked with an asterisk (\*).
- This document consists of **8** pages. Any blank pages are indicated.

1 Manufacturing sectors produce different products.

(a) Complete the links below to identify which manufacturing sector makes the products listed.

Manufacturing Sector	Product
Clothing and textiles	Gearbox
Food and drink	Shower gel
Motor manufacture	Sponge cake
Chemical and pharmaceutical	Waterproof jacket
Electrical	Coffee table
Furniture	Vacuum cleaner

[6]

(b) Choose **one** of the products given above and name a modern material or technology used in its manufacture.

Product .....

Modern material or technology ..... [1]

(c) State **one** manufacturing sector not shown above and give an example of a product made in that sector.

Sector .....

Product .....

[2]

2 Give **one** example of a manufactured product that you have studied or made.

Product .....

(a) Name **two** tools or pieces of equipment used when making the product.

1 .....

2 .....

[2]

(b) Describe **two** health and safety precautions taken when making the product.

1 .....

.....

..... [2]

2 .....

.....

..... [2]

3 Different stages are required in the development of a new product.

(a) Complete the chart below by adding the following stages in the correct order.

**develop designs**  
**client brief**  
**testing**

**present designs to client**  
**research**

Development Stages
develop specification
modify designs
prototyping
production planning

[5]

(b) Describe **two** ways in which modern technologies could be used in the development of a new product.

1 .....

.....

..... [2]

2 .....

.....

..... [2]

4 (a) Describe **one** quality control check carried out when making a product.

.....  
.....  
..... [2]

(b) Name **two** tools or items of equipment used when carrying out quality control checks on manufactured products.

1 .....

2 ..... [2]

(c) Explain, using **one** example, how modern technologies can be used to monitor quality.

.....  
.....  
.....  
..... [3]

5 'Modern' and 'smart' materials are often used in manufactured products.

(a) Give **three** factors that should be considered when selecting materials to use in manufactured products.

- 1 .....
- .....
- 2 .....
- .....
- 3 .....
- .....

[3]

(b) (i) Describe the **use** of a 'modern' material in a manufactured product.

- .....
- .....
- ..... [2]

(ii) Explain, using **one** example, what is meant by the term 'smart' material.

- .....
- .....
- .....
- ..... [3]

6 Describe, using examples, how information, communication and digital technologies could be used during the following stages of developing a new product.

Use a different example for each stage.

Research .....  
.....  
.....  
..... [3]

Developing designs .....  
.....  
.....  
..... [3]

Presenting designs to a client .....  
.....  
.....  
..... [3]

7 Explain, using **two** examples, how modern technologies are used to improve working conditions in manufacturing companies.

1 .....  
.....  
.....  
..... [3]

2 .....  
.....  
.....  
..... [3]

