

Thursday 19 January 2012 – Morning

GCSE MANUFACTURING

B232/02 Manufacturing Processes

Candidates answer on the Question Paper.

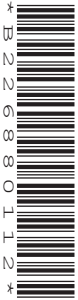
OCR supplied materials:

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 questions 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	Polystyrene egg box
Machinery and equipment	Games console
Paper and print	Baseball cap
Electronic and communications	Lawnmower
Furniture	Greetings card
Packaging	Book shelf

[6]

(b) State **one** manufacturing sector not shown above and give **two** examples of products made in that sector.

Sector [1]

Product 1 [1]

Product 2 [1]

2 Products are made using:

- **manufacturing processes**
- **tools and equipment**
- **quality checks**

Name a product you have made or are familiar with.

Product

(a) State **two** manufacturing processes used when making the product.

1 [1]

2 [1]

(b) State **two** tools or items of equipment used when making the product.

1 [1]

2 [1]

(c) State **two** different quality checks carried out during the making of the product.

1 [1]

2 [1]

(d) Describe **one** safety precaution that should be taken when making the product.

.....

.....

..... [2]

3 Prototypes are often used by manufacturing companies.

(a) Explain why a prototype might be made using different processes to those used for making the final product.

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

(b) Explain **two** benefits to a manufacturing company of making a prototype.

Benefit 1
.....
.....
Benefit 2
.....
..... [4]

4 Communication within manufacturing teams is of vital importance for a company's success.

(a) Describe **two** traditional methods a team leader might use to communicate with the rest of the team.

1
.....
..... [2]
2
.....
..... [2]

(b) Describe a modern communication method and identify **two** benefits it has over traditional methods.

.....
.....
.....
..... [4]

5 The design of a new product is carried out in a number of stages.

(a) Complete the chart below by naming the design stage that fits the description. An example has been done for you.

Presenting design ideas **Prototyping** **Client brief**
Modifying designs **Developing design ideas**

Design Stage	Description
	The customer describes the product they want
Developing design ideas	Sketches of the product are produced
	Drawings are changed
	Ideas are shown to the customer
	A model of the product is made

[4]

(b) Explain how modern technologies could be used during the following design stages:

(i) Research

.....

.....

.....

..... [3]

(ii) Production planning

.....

.....

.....

..... [3]

6 Many factors need to be considered when selecting materials for use in manufactured products.

The table below shows a comparison of six materials.

Material	Factors				
	Ease of storage	Ease of use	Safe to work with	Value for money	Readily available
A	2	6	5	8	9
B	5	6	5	5	4
C	8	2	1	2	3
D	1	9	1	2	2
E	3	8	6	3	5
F	9	5	3	8	1

10 = excellent 1 = very poor

(a) State which material is the safest to use.

Material [1]

(b) Explain why material F could be bought in bulk and stored for long periods before use.

.....

 [3]

(c) Describe **one** factor, other than those in the table above, that could be considered when selecting materials for manufactured products.

.....

 [2]

7 Choose **one** of the products from the list below to answer the following questions.

- **celebration cake**
- **child's toy**
- **dining table**
- **hat**
- **magazine**
- **torch**

Product

(a) State **two** materials or components that could be used to make the chosen product.

1

2 [2]

(b) Describe **one** process that could be used when making a small batch of the chosen product.

.....

.....

..... [2]

(c) Explain how this process could be modified for large scale production.

.....

.....

.....

..... [3]

