



GENERAL CERTIFICATE OF SECONDARY EDUCATION
MANUFACTURING
 Manufacturing Processes

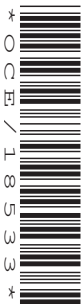
B232

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:
None

Wednesday 20 January 2010
Afternoon
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 clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.

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 is assessed in questions marked with an asterisk (*)
- This document consists of **8** pages. Any blank pages are indicated.

1 (a) Manufacturing sectors produce different products.

Complete the links below to identify which manufacturing sector makes the product listed.

Manufacturing Sector	Product
Chemical and pharmaceutical	— Armchair
Clothing and textiles	— Computer mouse
Electronic and communications	— Denim jeans
Food and drink	— Freeze-dried vegetables
Furniture	— Perfume bottle
Machinery and equipment	— Soap
Packaging	— Wheelbarrow

[7]

(b) State **two** manufacturing sectors not shown above and a product made in each sector.

Sector: [1]

Product: [1]

Sector: [1]

Product: [1]

2 (a) Describe **two** ways you could research existing products to find out about processes used in their manufacture.

1

 [2]

2

 [2]

(b) Explain why research into existing manufactured products is carried out when designing new products.

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

3 (a) Complete the box below by adding the following stages of manufacture in their correct order.

- Despatch
- Final quality check
- Processing and production
- Production planning

Manufacturing stages in correct order
Material supply and control
Assembly
Packaging

[4]

(b) (i) Describe **one** activity carried out in the processing and production stage of manufacture.

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

(ii) Describe **one** activity carried out in the packaging stage of manufacture.

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

4 The form in which a material, component or ingredient is supplied for manufacturing processing depends upon a range of factors.

(a) State **two** such factors

1 [1]

2 [1]

Some materials and ingredients are supplied in granular form.

(b) (i) Give **one** material or ingredient supplied in granular form.

..... [1]

(ii) Name **one** product made from the material you have given in (b) (i) above.

..... [1]

(iii) Describe **one** benefit to a manufacturer of using granular materials.

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

5 Information, communication and digital technologies are used by manufacturing industries.

(a) Describe how these technologies are used:

- when designing products for manufacture;
- to evaluate product designs;
- to ensure safety when manufacturing a product.

When designing products for manufacture.

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

To evaluate product designs.

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

To ensure safety when manufacturing a product.

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

(b) Describe **two** benefits of using Information Technology in production planning.

1

.....

..... [2]

2

.....

..... [2]

6 Manufacturing companies must ensure the working environment is suitable for production workers.

(a) Describe **one** health consideration for the working environment.

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

(b) Describe **one** different safety consideration for the working environment.

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

(c) Describe **one** different hygiene consideration for the working environment.

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

7 The table shows a comparison of six materials that could be used in a manufactured product.

Material	Ease of storage	Easy to 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	2	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 most difficult to use. [1]

(b) Explain why material **F** would be unsuitable for Just in Time production (JIT).

.....

.....

..... [2]

(c) A manufacturer has chosen material **C** to use in a product.

Using the information in the table, explain the reasons for choosing material **C**.

.....

.....

.....

..... [3]

