

# OCR

Oxford Cambridge and RSA

## Tuesday 20 June 2017 – Morning

### GCSE MANUFACTURING

#### B232/02 Manufacturing Processes

Candidates answer on the Question Paper.

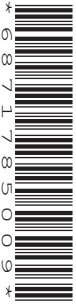
**OCR supplied materials:**

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 barcodes.

#### 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 **12** pages. Any blank pages are indicated.

Answer **all** the questions.

1 Manufacturing sectors produce different products.

(a) (i) Name **two** manufacturing sectors.

Sector 1 .....

Sector 2 .....

[2]

(ii) Give **one** example of a product made in each of the sectors named in part (i).

Product 1 .....

Product 2 .....

[2]

(b) Describe, using **one** example, the use of a modern technology in the manufacture of products.

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

2 'Modern' materials are often used in the manufacture of products.

(a) (i) Give **one** modern material used in a product you are familiar with.

Product.....

Modern material ..... [1]

(ii) Describe how the modern material in part (i) is used as a feature of the product.

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

(b) Materials and ingredients may be supplied to a manufacturer in a number of forms, such as those shown below.

**Granular**                      **Liquid**                      **Powder**  
**Sheet**                              **Solid**

(i) Give **one** example of a material or ingredient that is supplied in granular form.

Material/ingredient..... [1]

(ii) Give **two** examples of materials or ingredients that are supplied in liquid form.

Material/ingredient 1 .....

Material/ingredient 2..... [2]

(c) Describe **one** safety factor that should be considered when handling large sheets of material.

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

3 Fig. 1 shows examples of moulds used when manufacturing products.

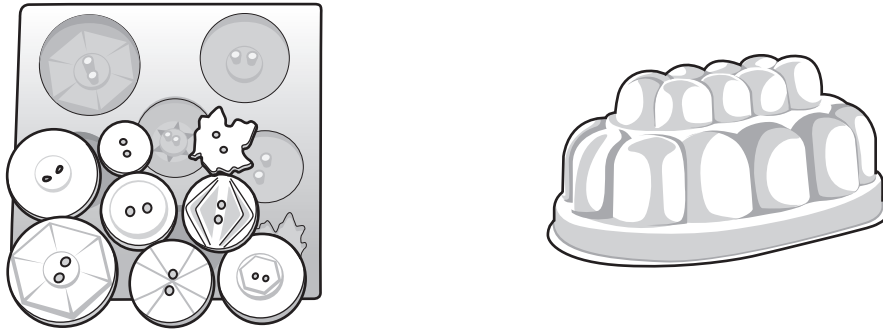


Fig. 1

(a) Give **two** reasons why a manufacturer would use a mould to make products.

1 .....

2..... [2]

(b) Quality Control is an important part of modern manufacturing.

(i) Name **one** tool or piece of equipment used in quality control.

..... [1]

(ii) Describe how the tool or piece of equipment given in part (i) is used to provide a measure of quality.

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

(c) Give **two** possible effects on a manufacturer of products not meeting the required quality standards.

1 .....

2..... [2]

4 A manufacturer is developing a design specification for a new product.

(a) Describe **two** manufacturing considerations that could result in a change to the design specification.

1.....  
.....  
.....  
.....

2.....  
.....  
.....  
.....

[4]

(b) Describe, using **one** example, how information, communication and digital technologies could be used to share design ideas with a client.

.....  
.....  
.....  
.....  
.....  
.....

[3]

(c) Manufacturers normally make prototypes of new products before starting production.

(i) Give **one** example of a modern technology used when making a prototype.

..... [1]

(ii) Describe how the modern technology in part (i) is used to make a prototype.

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



5 Training for staff is one factor that is considered by manufacturers when introducing new products.

(a) Give **two** other factors for manufacturers to consider when introducing new products.

1 .....

2.....

[2]

(b) Give **one** example of training that would be necessary for the workforce when introducing a new material or ingredient.

..... [1]

(c) (i) Describe how health and safety requirements impact on production methods used.

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

(ii) Describe how market needs can influence production methods.

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

6 Manufacturers consider a range of factors when choosing a supplier of materials or ingredients.

(a) (i) Give **two** factors a manufacturer should consider when choosing a supplier.

1 .....

2 .....

[2]

(ii) Describe how health, safety and hygiene can impact on the storage of materials and ingredients.

.....

.....

.....

..... [2]

(b) Explain how the availability of materials could influence the amount of stock that is held by a manufacturer.

.....

.....

.....

..... [2]



7 The production stages of manufacture often use input and output devices to control processes.

(a) (i) Give **one** example of how a machine operator can provide an input signal to start a process.

..... [1]

(ii) A warning lamp is one example of an output device.  
Give **two** other examples of output devices.

1 .....

2 .....

[2]

(b) Explain, giving **one** example, how the form of supply of materials can influence the processes used in the manufacture of products.

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



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