

Write your name here	
Surname	Other names
<b>Edexcel</b> <b>Principal Learning</b>	Centre Number
	Candidate Number
<b>Manufacturing and Product Design</b>	
<b>Level 1</b>	
<b>Unit 1: Introduction to Manufacturing</b>	
Wednesday 19 May 2010 – Morning <b>Time: 45 minutes</b>	Paper Reference <b>MP101/01</b>
You may use a calculator.	Total Marks

### Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*

### Information

- The total mark for this paper is 30.
- The marks for **each** question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

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Turn over ►

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**ALL questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

**1** Which **one** of the following is a main business process within manufacturing?

<b>A</b>	Administration	<input type="checkbox"/>
<b>B</b>	Cleaning	<input type="checkbox"/>
<b>C</b>	Storage	<input type="checkbox"/>
<b>D</b>	Computing	<input type="checkbox"/>

**(Total for Question 1 = 1 mark)**

**2** Which manufacturing business process transports finished goods to the customer?

<b>A</b>	Distribution	<input type="checkbox"/>
<b>B</b>	Accounts	<input type="checkbox"/>
<b>C</b>	Maintenance	<input type="checkbox"/>
<b>D</b>	Sales	<input type="checkbox"/>

**(Total for Question 2 = 1 mark)**

**3** Which manufacturing business process would a breakfast cereal manufacturer use to promote a new product?

<b>A</b>	Maintenance	<input type="checkbox"/>
<b>B</b>	Marketing	<input type="checkbox"/>
<b>C</b>	Storage	<input type="checkbox"/>
<b>D</b>	Accounts	<input type="checkbox"/>

**(Total for Question 3 = 1 mark)**

**4** Which **one** of the following is an employee benefit?

<b>A</b>	Road/rail links	<input type="checkbox"/>
<b>B</b>	Pension scheme	<input type="checkbox"/>
<b>C</b>	Unpaid overtime	<input type="checkbox"/>
<b>D</b>	Recycled materials	<input type="checkbox"/>

**(Total for Question 4 = 1 mark)**



5 Reducing energy usage in a manufacturing business is a(n):

A	maintenance process	<input type="checkbox"/>
B	demographic issue	<input type="checkbox"/>
C	sales process	<input type="checkbox"/>
D	environmental issue	<input type="checkbox"/>

(Total for Question 5 = 1 mark)

6 What is the **main** advantage to a manufacturer of being located close to a motorway junction?

A	Close to competitors	<input type="checkbox"/>
B	Reduced time to transport finished goods	<input type="checkbox"/>
C	Decrease in labour costs	<input type="checkbox"/>
D	Increased lead times	<input type="checkbox"/>

(Total for Question 6 = 1 mark)

7 Which manufacturing sub-sector produces flour for bakeries?

A	Food and drink	<input type="checkbox"/>
B	Processing and print	<input type="checkbox"/>
C	Engineering manufacture	<input type="checkbox"/>
D	Textile and clothing	<input type="checkbox"/>

(Total for Question 7 = 1 mark)

8 Which manufacturing sub-sector produces computers?

A	Food and drink	<input type="checkbox"/>
B	Processing and print	<input type="checkbox"/>
C	Engineering manufacture	<input type="checkbox"/>
D	Textile and clothing	<input type="checkbox"/>

(Total for Question 8 = 1 mark)



9 Which manufacturing sub-sector produces steel bar?

A	Chemical	<input type="checkbox"/>
B	Food and drink	<input type="checkbox"/>
C	Automotive	<input type="checkbox"/>
D	Engineering	<input type="checkbox"/>

(Total for Question 9 = 1 mark)

10 Which **one** of the following is a sub-sector in manufacturing?

A	Technology and IT	<input type="checkbox"/>
B	Financial products	<input type="checkbox"/>
C	Clothing products	<input type="checkbox"/>
D	Audio-visual communications	<input type="checkbox"/>

(Total for Question 10 = 1 mark)

11 Fuel costs increase for a kitchen appliance manufacturer.

To maintain its profit level the manufacturer would normally increase:

A	emissions	<input type="checkbox"/>
B	prices	<input type="checkbox"/>
C	wages	<input type="checkbox"/>
D	waste	<input type="checkbox"/>

(Total for Question 11 = 1 mark)

12 Identify **one** effect of world trading on a UK manufacturer.

A	Increased competition	<input type="checkbox"/>
B	Stable product prices	<input type="checkbox"/>
C	Stable material prices	<input type="checkbox"/>
D	Decrease of imports	<input type="checkbox"/>

(Total for Question 12 = 1 mark)



**13** A worldwide shortage of crude oil normally means that the price of petrol in the UK will:

<b>A</b>	stay the same	<input type="checkbox"/>
<b>B</b>	increase	<input type="checkbox"/>
<b>C</b>	decrease	<input type="checkbox"/>
<b>D</b>	revert to Euros	<input type="checkbox"/>

**(Total for Question 13 = 1 mark)**

**14** An expense incurred by a component being manufactured incorrectly is normally described as a(n):

<b>A</b>	quality cost	<input type="checkbox"/>
<b>B</b>	communication price	<input type="checkbox"/>
<b>C</b>	equipment payment	<input type="checkbox"/>
<b>D</b>	material tax	<input type="checkbox"/>

**(Total for Question 14 = 1 mark)**

**15** A chocolate manufacturer increases the cost of its product. What is the most likely effect on the business?

<b>A</b>	Increased sales	<input type="checkbox"/>
<b>B</b>	Decreased sales	<input type="checkbox"/>
<b>C</b>	Increased competition	<input type="checkbox"/>
<b>D</b>	Decreased competition	<input type="checkbox"/>

**(Total for Question 15 = 1 mark)**

**16** Which **one** of the following is a fixed cost?

<b>A</b>	Consumable materials	<input type="checkbox"/>
<b>B</b>	Skilled labour	<input type="checkbox"/>
<b>C</b>	Business rates	<input type="checkbox"/>
<b>D</b>	External distribution	<input type="checkbox"/>

**(Total for Question 16 = 1 mark)**



17 The direct costs of producing a plastic belt are:

Materials	10p
Wages	15p
Other production costs	8p

What is the total cost of producing the plastic belt?

<b>A</b>	18p	<input type="checkbox"/>
<b>B</b>	25p	<input type="checkbox"/>
<b>C</b>	33p	<input type="checkbox"/>
<b>D</b>	23p	<input type="checkbox"/>

(Total for Question 17 = 1 mark)

18 The overhead cost for making 30 000 bathroom tiles is £26 400.

What is the overhead cost for making one tile?

<b>A</b>	£0.88	<input type="checkbox"/>
<b>B</b>	£0.93	<input type="checkbox"/>
<b>C</b>	£0.97	<input type="checkbox"/>
<b>D</b>	£1.14	<input type="checkbox"/>

(Total for Question 18 = 1 mark)

19 Which **one** of the following is a fixed cost?

<b>A</b>	Transport	<input type="checkbox"/>
<b>B</b>	Materials	<input type="checkbox"/>
<b>C</b>	Packaging	<input type="checkbox"/>
<b>D</b>	Rent	<input type="checkbox"/>

(Total for Question 19 = 1 mark)



20 The fixed cost for making 20 batteries is £10.  
What is the fixed cost of making one battery?

A	£0.20	<input type="checkbox"/>
B	£2.00	<input type="checkbox"/>
C	£5.00	<input type="checkbox"/>
D	£10.00	<input type="checkbox"/>

(Total for Question 20 = 1 mark)

21 Which business process uses the most energy in a foundry?

A	Maintenance	<input type="checkbox"/>
B	Production	<input type="checkbox"/>
C	Distribution	<input type="checkbox"/>
D	Storage	<input type="checkbox"/>

(Total for Question 21 = 1 mark)

22 A manufacturer in a rural location requires five part-time labourers.

Where is the **best** place to advertise the jobs?

A	National newspaper	<input type="checkbox"/>
B	Local newspaper	<input type="checkbox"/>
C	International website	<input type="checkbox"/>
D	National magazine	<input type="checkbox"/>

(Total for Question 22 = 1 mark)

23 Which **one** of the following would cause a manufacturing business to leave a region?

A	Poor communication network	<input type="checkbox"/>
B	Good unemployment benefits	<input type="checkbox"/>
C	Poor catering services	<input type="checkbox"/>
D	Good retail facilities	<input type="checkbox"/>

(Total for Question 23 = 1 mark)



24 Which product belongs to the polymer sub-sector?

A	Stainless steel	<input type="checkbox"/>
B	Medium density fibreboard	<input type="checkbox"/>
C	High density polyethylene	<input type="checkbox"/>
D	Phosphorescent pigment	<input type="checkbox"/>

(Total for Question 24 = 1 mark)

25 Which **one** of the following is made by the textiles and clothing sub-sector?

A	USB drives	<input type="checkbox"/>
B	Cellophane film	<input type="checkbox"/>
C	Car tyres	<input type="checkbox"/>
D	Intelligent fabric	<input type="checkbox"/>

(Total for Question 25 = 1 mark)

26 Which manufacturing sub-sector produces plastic milk bottles?

A	Food and drink	<input type="checkbox"/>
B	Chemical, polymer and pharmaceuticals	<input type="checkbox"/>
C	Engineering manufacture	<input type="checkbox"/>
D	Processing and print	<input type="checkbox"/>

(Total for Question 26 = 1 mark)

27 A company manufactures 2 058 handbags a week. The weekly labour cost for the business is £17 600.

What is the labour cost of making one handbag?

A	£3.62	<input type="checkbox"/>
B	£5.29	<input type="checkbox"/>
C	£8.55	<input type="checkbox"/>
D	£12.37	<input type="checkbox"/>

(Total for Question 27 = 1 mark)





**28** The total variable cost of manufacturing 100 light bulbs is £20. The cost of setting up to make a batch is £75.  
What is the cost of making a batch of 500?

<b>A</b>	£100	<input type="checkbox"/>
<b>B</b>	£175	<input type="checkbox"/>
<b>C</b>	£375	<input type="checkbox"/>
<b>D</b>	£515	<input type="checkbox"/>

(Total for Question 28 = 1 mark)

**29** Which **one** of the following makes single article manufacture more expensive?

<b>A</b>	Economies of scale	<input type="checkbox"/>
<b>B</b>	Lean production methods	<input type="checkbox"/>
<b>C</b>	Unskilled production operatives	<input type="checkbox"/>
<b>D</b>	Shorter lead time	<input type="checkbox"/>

(Total for Question 29 = 1 mark)

**30** The cost of manufacturing a bicycle is £70. A profit margin of 15% is added.  
If 10 bicycles are sold, what would the total profit be?

<b>A</b>	£105	<input type="checkbox"/>
<b>B</b>	£10.50	<input type="checkbox"/>
<b>C</b>	£100	<input type="checkbox"/>
<b>D</b>	£105.50	<input type="checkbox"/>

(Total for Question 30 = 1 mark)

**TOTAL FOR PAPER = 30 MARKS**



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