

Write your name here

Surname

Other names

**Edexcel  
Principal Learning**

Centre Number

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Candidate Number

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## Manufacturing and Product Design

Level 3

### Unit 2: Customer Needs and Market Requirements in Manufacturing

Wednesday 18 January 2012 – Morning

**Time: 1 hour 30 minutes**

Paper Reference

**MP302/01**

**You do not need any other materials.**

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 90.
- 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.

Turn over ►

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**Answer ALL questions. Write your answers in the space provided.**

**1** Manufacturers use questionnaires to collect information.

(a) With reference to questionnaires, explain the terms:

(i) population

(2)

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(ii) sample

(2)

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(iii) respondent

(2)

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(b) Open and closed questions can be used in questionnaires.

(i) Outline **one** feature of an open question

(2)

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(ii) Outline **one** feature of a closed question

(2)

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(c) State **four** advantages of using face-to-face discussions when undertaking research.

(4)

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2 .....

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3 .....

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4 .....

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



2 Manufacturers collect and analyse data from questionnaires.

Describe **four** ways a manufacturer would use this data to inform product development.

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**(Total for Question 2 = 8 marks)**



3 (a) Outline what is meant by the term **market saturation**.

(2)

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(b) Outline **two** factors that could signify that a product has saturated the market.

(4)

1 .....

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2 .....

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**(Total for Question 3 = 6 marks)**



**4** Manufacturers use many strategies to help develop a relationship with their customers.

(a) A manufacturer has a 'cradle to the grave' relationship with a customer.

Outline **two** advantages of this relationship for the customer.

(4)

1 .....

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(b) Outline **two** methods that a company could use to maintain brand loyalty.

(4)

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**(Total for Question 4 = 8 marks)**



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5 (a) Outline the duties and responsibilities of a manufacturer in relation to the Disability Discrimination Act.

(6)

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(b) It is important that the working environment in any manufacturing company is safe.

Outline how a manufacturing company could help eliminate unsafe practices.

(8)

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**(Total for Question 5 = 14 marks)**



6 The iPod is considered to be an innovative and iconic product.

(a) Describe how the iPod meets market requirements and customer needs.

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(b) Describe a possible marketing strategy for an innovative new product.

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**(Total for Question 6 = 12 marks)**



7 Discuss how energy usage can affect the final price of a product.

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**(Total for Question 7 = 4 marks)**



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8 A manufacturing company's carbon footprint can be affected by a number of factors.

(a) Discuss the activities that could reduce a manufacturing company's carbon footprint.

(8)

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9 Manufacturers and the purchasers of cars use statistics in a number of ways.

Table 1 shows the fuel consumption figures for five cars.

	<b>1.4 TDI 3 door car</b>	<b>1.6 L TDI hatchback</b>	<b>1.4 TDCi 4 door saloon</b>	<b>1.2 super mini</b>	<b>Electric car</b>
Type of fuel/ source of energy	Diesel	Diesel	Diesel	Petrol	Electricity
Fuel consumption (miles per gallon)	74.3	27	62.8	53.3	n/a
Carbon emissions (grams per kilometre)	110 g/km	99 g/km	142 g/km	127 g/km	n/a
Distance on a full tank/full charge (miles)	265	326	281	278	29

**Table 1**





From the manufacturer's point of view, discuss how the statistical data in Table 1 might be used to market its vehicles.

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**(Total for Question 9 = 8 marks)**

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**TOTAL FOR PAPER = 90 MARKS**





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