

GCSE

**Specimen Papers and Mark Schemes**

**Edexcel GCSE  
Design & Technology: Graphic Products  
Short course (3972)**

**For First Examination  
Summer 2003**

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**Autumn 2000**

**Publications Code **UG 009335****

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**Answer ALL questions in the spaces provided.**



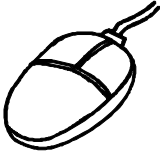

*Leave blank*

1. The table below shows either some tools or components or equipment.

(a) Complete the table by:

- (i) naming each tool or component or equipment;
- (ii) describing its use.

The first is done for you.

TOOL / COMPONENT / EQUIPMENT	NAME	DESCRIPTION
	Hot melt glue gun	Tool for gluing rigid materials
		
		
		

(6)

(b) Give **two** safety procedures which must be followed when using the hot melt glue gun.

1 .....

2 .....

(2)

*Leave blank*

(c) Name the most suitable adhesive for the following uses.

Use	Suitable Adhesive
Gluing paper on to paper	
Gluing a photograph on to card (allowing for repositioning)	
Gluing corrugated card on to foam board	

**(3)**

**(Total 11 marks)**

2. A colour leaflet promoting the Valley Leisure Centre is to be distributed in the local area.

(a) The leaflet is to have a gloss surface finish to the paper.

(i) Name **two** printing effects that could be used to give a gloss finish

1 .....

2 .....

**(2)**

(ii) Explain **two** reasons why a gloss finish to the paper may be needed.

1 .....

.....

2 .....

.....

**(4)**

(b) 20,000 copies of the leaflet are to be printed. Name a suitable printing process and describe **two** advantages of using this process.

Name.....

Advantage 1 .....

.....

Advantage 2.....

.....

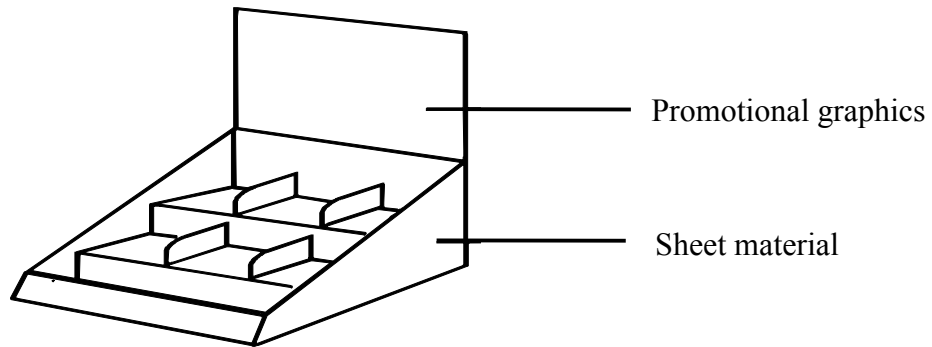
**(5)**

**(Total 11 marks)**



**BLANK PAGE**  
**TURN OVER FOR QUESTION 3**

3. The diagram below shows the prototype of a shop counter display for a new chocolate bar.



(a) Two specification points for the shop counter display are:

- the display must contain 20 chocolate bars;
- the display must appeal to young children.

Give **three** more points of specification which could be included in the specification of this display. For each point, give a reason why it should be included.

1 .....

Reason .....

2 .....

Reason .....

3 .....

Reason .....

(6)

(b) Name **three** suitable specific materials for making this shop counter display.

1 .....

2 .....

3 .....

(3)

- (c) Give **one** property associated with **one** of the materials you have named in (b) and explain how this property makes it suitable for this application.

Property .....

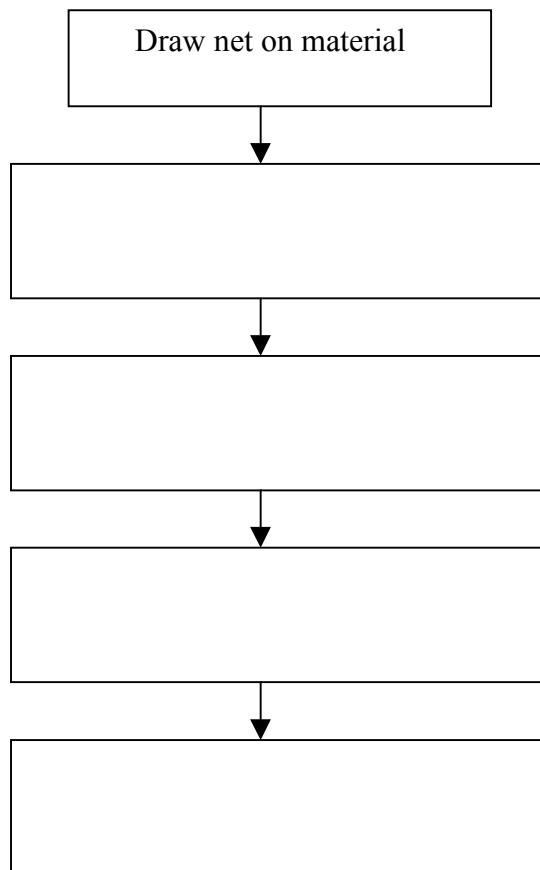
Explanation.....

.....  
.....

(4)

- (d) This counter display is a one-off prototype using manual cut and paste techniques. Complete the diagram below to show the main stages in the one-off prototype production process of the net.

The first is done for you.



(5)

*Leave  
blank*

(e) The purpose of this display is to sell chocolate bars.

Describe how the display helps to achieve this purpose.

.....

.....

.....

.....

**(4)**

**(Total 22 marks)**

---

**PAPER TOTAL 44 MARKS**

**END**

*Leave  
blank*

Centre Number					Paper Reference	Surname
Candidate Number					Candidate Signature	Other Names

For Examiner's use only

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For Team Leader's use

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**3972/2H**

**Edexcel GCSE**

**Design and Technology:  
Graphic Products  
(Short Course)**

Paper 2H

HIGHER TIER

Specimen Papers

Time 1 hour

**N0000**

**Materials required for the examination**

None

**Items included with these question papers**

None

Question Number	Leave Blank
1	
2	
3	
Total	

**Instructions to Candidates**

In the boxes above, write your centre number, candidate number, the paper reference, your signature, your surname and other names. The paper reference is shown in the top left hand corner. Attempt ALL questions using the spaces provided in the Question Paper.

**Information for Candidates**

You may use drawing equipment and coloured pencils.  
All measurements are in mm unless otherwise stated.

**Advice to Candidates**

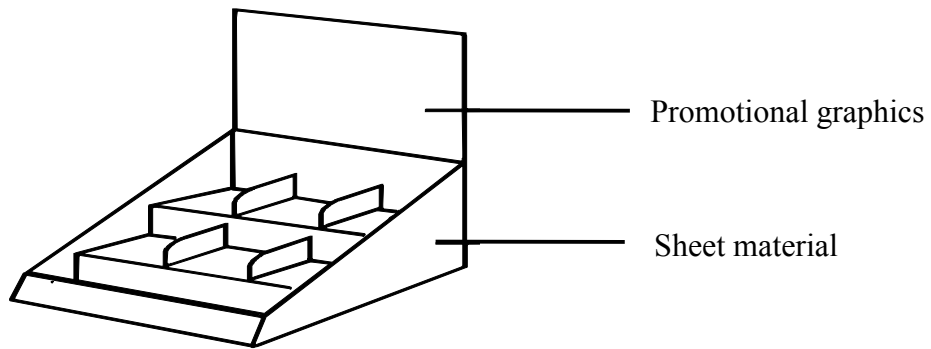
You are reminded of the importance of clear and orderly presentation in your answers.  
Include diagrams where these are helpful.

Turn over

**Answer ALL questions in the spaces provided.**

*Leave blank*

1. The diagram below shows the prototype of a shop counter display for a new chocolate bar.



(a) Two specification points for the shop counter display are:

- the display must contain 20 chocolate bars;
- the display must appeal to young children.

Give **three** more points of specification which could be included in the specification of this display. For each point, give a reason why it should be included.

1 .....

Reason .....

2 .....

Reason .....

3 .....

Reason .....

**(6)**

(b) Name **three** suitable specific materials for making this shop counter display.

1 .....

2 .....

3 .....

**(3)**

- (c) Give **one** property associated with **one** of the materials you have named in (b) and explain how this property makes it suitable for this application.

Property .....

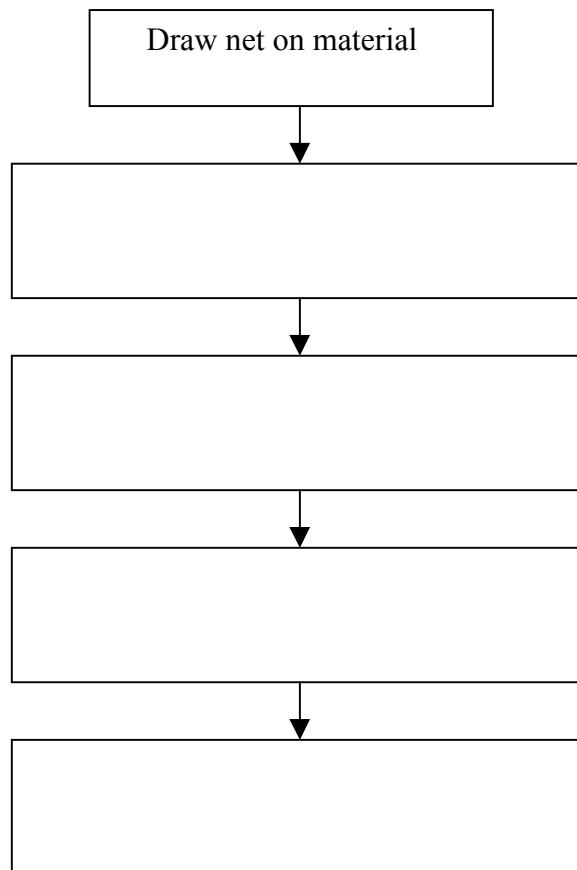
Explanation.....

.....  
.....

(4)

- (d) This counter display is a one-off prototype using manual cut and paste techniques. Complete the diagram below to show the main stages in the one-off prototype production process of the net.

The first is done for you.



(5)

*Leave  
blank*

(e) The purpose of this display is to sell chocolate bars.

Describe how the display helps to achieve this purpose.

.....

.....

.....

.....

.....

.....

**(4)**

**(Total 22 marks)**

---

*Leave  
blank*



2. A printed brochure advertising a local company is to be produced. It must have a high quality appearance.

(a) Name **one** printing effect which may give this appearance and describe how it is achieved.

Effect .....

Description .....

.....

(3)

(b) The prototype brochure is to be produced using a computer the same as those found in most schools.

(i) Name **two** different uses for a computer when designing a Graphic Product.

1 .....

2 .....

(2)

(ii) Describe **three** qualities a computer has that makes it suitable for small scale production.

1 .....

.....

2 .....

.....

3 .....

.....

(6)

(Total 11 marks)

3. Corrugated card and expanded polystyrene are often used to package electrical products.

(a) For corrugated card give **three** characteristics that make it suitable for packaging electrical products.

- 1 .....
- 2 .....
- 3 .....

(3)

(b) For expanded polystyrene give **two** different characteristics that make it suitable for packaging electrical products.

- 1 .....
- 2 .....

(2)

(c) Solid board is another material used for packaging electrical products.

Explain **two** advantages and **one** disadvantage of its use over corrugated card.

Advantage 1 .....

Advantage 2 .....

Disadvantage .....

(6)

(Total 11 marks)

---

**PAPER TOTAL 44 MARKS**

**END**

**DESIGN & TECHNOLOGY: GRAPHIC PRODUCTS (3972/2F)**  
**SHORT COURSE FOUNDATION TIER MARK SCHEME**

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
<b>1</b>	<b>(a)</b>	<b>(i)</b>	Name: Fine line pen, Name: computer mouse, Name: scalpel.	<b>3x1</b>	
		<b>(ii)</b>	Use: Sketching and drawing, Use: controlling cursor on screen, Use: cutting sheet materials	<b>3x1</b>	<b>(6)</b>
	<b>(b)</b>		Use a gluing surface/protect desk top, bench etc Keep fingers away from hot surfaces Avoid deliberate misuse causing burns Leave on stand not on side Electrical safety	<b>2x1</b>	<b>(2)</b>
	<b>(c)</b>		Glue stick/spray mount Spray mount Hot melt gun	<b>3x1</b>	<b>(3)</b>
					<b>(11)</b>
<b>2</b>	<b>(a)</b>	<b>(i)</b>	Laminating; varnishing	<b>2x1</b>	<b>(2)</b>
		<b>(ii)</b>	Explanation which makes reference to: High quality finish – visual impact Strengthen paper structure Durability	<b>2x2</b>	<b>(4)</b>
	<b>(b)</b>		Lithography Widely used modern printing process, many suppliers, good print quality, most economical process for general printing Ideal for medium to long runs	<b>1</b> <b>2x2</b>	<b>(5)</b>
					<b>(11)</b>
<b>3</b>	<b>(a)</b>		Accept any three relevant points of specification and reasons eg: Point: The display must incorporate company name / logo Reason: To promote company Point: The display must incorporate product name / logo Reason: To promote product Point: Must be lightweight Reason: To ensure it is mobile Point: Must be robust / hardwearing Reason: To ensure it does not need replacing frequently	<b>6x1</b>	<b>(6)</b>
		<b>(b)</b>	Foam-board	<b>1</b>	
			Corrugated card, corrugated plastic sheet	<b>1</b>	
		Solid board	<b>1</b>	<b>(3)</b>	

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
	(c)		Strength / rigidity/ low cost/ easily cut and shaped/ good printing surface Explanation	1+3	(4)
	(d)		Add graphics whilst flat / cut out/ score and fold/ glue Correct sequence	4x1 1	(5)
	(e)		Customers when paying for goods at counter are attracted by display and purchase product. High visual impact attracts customer	2x2	(4)
					(22)
			<b>TOTAL FOR PAPER 44 MARKS</b>		

**DESIGN & TECHNOLOGY: GRAPHIC PRODUCTS (3972/2H)**  
**SHORT COURSE HIGHER TIER MARK SCHEME**

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
<b>1</b>	<b>(a)</b>		Accept any three relevant points of specification and reasons eg: Point: The display must incorporate company name / logo Reason: To promote company Point: The display must incorporate product name / logo Reason: To promote product Point: Must be lightweight Reason: To ensure it is mobile Point: Must be robust / hardwearing Reason: To ensure it does not need replacing frequently	<b>6x1</b>	<b>(6)</b>
	<b>(b)</b>		Foam board	<b>1</b>	
			Corrugated card, corrugated plastic sheet	<b>1</b>	
			Solid board	<b>1</b>	<b>(3)</b>
	<b>(c)</b>		Strength / rigidity/ low cost/ easily cut and shaped/ good printing surface Explanation	<b>1+3</b>	<b>(4)</b>
	<b>(d)</b>		Add graphics whilst flat / cut out/ score and fold/ glue Correct sequence	<b>4x1</b> <b>1</b>	<b>(5)</b>
	<b>(e)</b>		Customers when paying for goods at counter are attracted by display and purchase product. High visual impact attracts customer.	<b>2x2</b>	<b>(4)</b>
					<b>(22)</b>
<b>2</b>	<b>(a)</b>		Naming printing effect Description Laminating –gives paper a high gloss look/strengthens/protects; varnishing – selected areas of text or images varnished for highlighting and high visual impact/protection die cutting special shapes cut out of paper –high visual impact; embossing – portion of surface raised- high visual impact	<b>1</b> <b>2</b>	<b>(3)</b>
	<b>(b)</b>		Desktop publishing, draw and paint, solid and wire frame modelling, CAD	<b>2x1</b>	<b>(2)</b>
	<b>(c)</b>		Good print quality from output devices such as printer/plotter Identical reproduction of images and data Cheap to run/print, labour saving	<b>3x2</b>	<b>(6)</b>
					<b>(11)</b>

Qu.	Prt Qu.	Sub Qu.	Detailed Possible Answers	Mark Alloc.	Sub. Total
3	(a)		Corrugated card – low cost protective packaging for boxes / recyclable; rigid and strong; can be printed on	3x1	(3)
	(b)		Polystyrene block – low cost packaging used in conjunction with cardboard box / impact absorbing; light	2x1	(2)
	(c)		Advantages – excellent printing surface for advertising / very strong for protection  Disadvantages – higher cost than corrugated card; environmental effect of bleaching board during manufacture	3x2	(6)
					(11)
			<b>TOTAL FOR PAPER 44 MARKS</b>		

**DESIGN & TECHNOLOGY: GRAPHIC PRODUCTS (3972)  
SPECIFICATION GRID**

<b>PAPER 2F</b>				
<b>Quest</b>	<b>Assessment objective tested</b>	<b>Content covered by question</b>	<b>Question style/type</b>	<b>Marks</b>
1	AO1	Preparing, processing and finishing materials.	Structured question on a theme.	<b>Total 11</b>
2	AO1	Classification and selection of materials and components.	Structured question on a theme.	<b>Total 11</b>
3	AO3	Design and market influence.	Product analysis – candidates are asked to analyse a product following the analysis process.	<b>Total 22</b>
<b>PAPER 2H</b>				
<b>Quest</b>	<b>Assessment objective tested</b>	<b>Content covered by question</b>	<b>Question style/type</b>	<b>Marks</b>
1	AO3	Design and market influence.	Product analysis – candidates are asked to analyse a product following the analysis process.	<b>Total 22</b>
2	AO1	Preparing, processing and finishing materials.	Structured question on a theme.	<b>Total 11</b>
3	AO1	Classification and selection of materials and components.	Structured question on a theme.	<b>Total 11</b>

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Summer 2000

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