

Mark Scheme (Results) Summer 2008

GCSE

GCSE Design & Technology: Graphic Products (3972) Paper 2H

3972 2H Mark Scheme

Question Number	Answer	Mark
1 (a)(i)	<p>Market</p> <p>Point: The cost of manufacturing the game should be low Reason: To maximise profits</p> <p>Point: The game should appear expensive / value for money Reason: To justify high price</p> <p>Point: The game should stand out from other games / be attractive Reason: To increase sales</p> <p>Point: Suit target audience Reason: Consumer satisfaction</p> <p style="text-align: right;">(2 x 1)</p>	(2)
1 (a)(ii)	<p>Environment</p> <p>Point: Minimum materials used Reason: Resource conservation</p> <p>Point: Made from recycled materials / Possible to be recycled Reason: Resource conservation / waste minimisation</p> <p>Point: The manufacture of the game should not cause pollution Reason: Protection of the environment</p> <p>Point: The game should display a recycle symbol Reason: Consumer awareness</p> <p style="text-align: right;">(2 x 1)</p>	(2)
1 (a)(iii)	<p>Quality</p> <p>Point: Any text should be easy to read / clearly printed Reason: Consumer satisfaction / brand reputation</p> <p>Point: The materials the game is made from should be durable /reliable Reason: Consumer satisfaction / brand reputation</p> <p>Point: The game should comply with relevant legal standards Reason: Moral and legal obligation</p> <p>Point: Fit for Purpose Reason: Consumer satisfaction / better sales</p> <p style="text-align: right;">(2 x 1)</p> <p><i>Some flexibility should be given as some points may cross over descriptions.</i></p>	(2)

<p>1 (b)(i)</p>	<p>Two reasons given</p> <p>Any two from:</p> <ul style="list-style-type: none"> • Has a smooth surface (1) • Can be printed on (1) • Is sufficiently tough / durable (1) • Is lightweight (1) • Low cost / cost effective (1) • Can be easily stuck/shaped to the playing board (1) • Flexible (1) • Enhances appearance (1) <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: center;">(2)</p>
<p>1 (b)(ii)</p>	<p>Two reasons given</p> <ul style="list-style-type: none"> • Protection / more durable / makes it last longer / hard wearing / water resistant • Easily cleaned / can be wiped over • Enhances/maintains appearance <p style="text-align: right;">(2 x 1)</p>	<p style="text-align: center;">(2)</p>
<p>1 (c)</p>	<p>Two properties and reasons given</p> <p>Any two from:</p> <ul style="list-style-type: none"> • Property: It is tough / durable / strong • Reason: The case will withstand use / protect cards • Property: It is hard / rigid • Reason: Will maintain shape / protect cards • Property: It is self coloured • Reason: Reduces production processes / looks attractive • Property: It is non toxic • Reason: It will be safe for the user • Property: It is lightweight • Reason: It will be easy to transport / store • Property: It is a thermoplastic • Reason: It can be injection moulded (<i>do not accept 'shaped' / 'formed'</i>) <p>(Cost is not a valid property, but if a valid reason is linked to cost 1 mark)</p> <p style="text-align: right;">(2 x 1) (2 x 1)</p>	<p style="text-align: center;">(4)</p>

1 (d)	<p>Two quality control checks given</p> <p>Any two from:</p> <ul style="list-style-type: none"> • Ink density / colour • Registration / alignment of colour separations • Size • Physical properties of material <p style="text-align: right;">(2 x 1)</p>	(2)
1 (e)	<p>Any one from:</p> <ul style="list-style-type: none"> • The playing parts are simple shapes and this means the moulds will be easier / cheaper / quicker to manufacture. • The playing parts are hollow and this reduces the materials required / costs • The shapes do not have undercuts and this makes removal from the mould easier. <p style="text-align: right;">(2 x 1)</p>	(2)
1 (f)	<p>One method explained:</p> <p>Be safe for users:</p> <ul style="list-style-type: none"> • The contents do not have sharp edges and this means they cannot cut the user. • Some contents are small and this means they will not choke the user if swallowed. • Some contents are too big to be swallowed therefore no risk of choking. • The contents are made from inert materials/are easily cleaned and this means they will not poison the user/prove to be a health risk to the user. <p style="text-align: right;">(2 x 1)</p> <p>Be easy to store:</p> <ul style="list-style-type: none"> • The playing board folds this reduces the space / size / tessellate required for storage. • The box has a lid this means it will keep the contents within. • The tray holds the components separately this means you know where to put each bit. • Box is cuboid therefore it stacks well / tessellates • Contents fit in box therefore won't get lost <p style="text-align: right;">(2 x 1)</p>	(2)
Total for question		22

Question Number	Answer	Mark
2 (a)(i)	<p>One process named</p> <p>Any one from:</p> <ul style="list-style-type: none"> • Screen printing • Thermal/iron on • Stencilling • Transfer <p style="text-align: right;">(1 x 1)</p>	(1)
2 (a)(ii)	<p>One reason explained</p> <ul style="list-style-type: none"> • The glue in the glue stick is in a tube and this makes it quick / easy to apply/hold. • The glue stick is non toxic this makes it safe to use. • The glue stick is low cost this reduces production costs. • The glue stick is not strong this allows pieces to be moved. • The glue stick sets quickly this reduces production time. • The glue stick is not runny/messy so it keeps the work tidy / does not warp/distort the paper. <p style="text-align: right;">(2 x 1)</p>	(2)
2 (b)(i)	<p>One reason described</p> <ul style="list-style-type: none"> • Some production methods need digital inputs / use of a computer • Software allows manipulation of the image to change the appearance of the image. • Saves multiple drawing and reduces time. • The data is digitised and gives good quality/accurate copies. • Allows electronic communication due to a digital format. • Image not available from other source (1 mark for reason) <p style="text-align: right;">(2 x 1)</p>	(2)
2 (b)(ii)	<p>One description given</p> <ul style="list-style-type: none"> • The surface has holes/pits/recesses/engraved/cells that fill up with ink. • It is a flat sheet/cylinder of metal which has holes/pits/recesses in it. • It has an image on it which is made from holes/pits/recesses in the surface. • It is a piece of metal with a reverse/mirrored image <p style="text-align: right;">(2 x 1)</p>	(2)
2 (b)(iii)	<p>One reason explained</p> <ul style="list-style-type: none"> • Laminating will protect the poster and this will make it last longer / maintain its appearance / easier to clean. • Laminating will enhance the appearance of the poster and this will increase the number of sales / justify a higher retail price / increase manufacturer profits / increase readership <p style="text-align: right;">(2 x 1)</p>	(2)

2 (c)	<p>Two reasons given</p> <p>Any two from:</p> <ul style="list-style-type: none"> • To make sure it is safe • To make sure it fits / not too big • To make sure it is not too small • To make sure it looks good • To make sure it is durable • Test stretch • To make sure it is comfortable • Make sure is colourfast <p style="text-align: right;">(2 x 1)</p>	(2)
	Total for question	11

Question Number	Answer	Mark
3 (a)(i)	<p>One advantage stated:</p> <p>Any one from:</p> <ul style="list-style-type: none"> • More attractive material • More attractive finish • Lower possible health risk • Easier / quicker to work (<i>do not accept 'easier' or "quicker" by itself</i>) • More flexible sizes <p style="text-align: right;">(1 x 1)</p>	(1)
3 (a)(ii)	<p>One advantage explained:</p> <ul style="list-style-type: none"> • Lower equipment costs so money can be spent on other things. • No dependence on ICT meaning work can be done anywhere/ no work lost. • No software to impose constraints meaning greater flexibility in designs. • Some designers dislike using CAD this means they get greater satisfaction using drawing boards • Different skill set used this means greater ability of designer created. <p style="text-align: right;">(2 x 1)</p>	(2)
3 (b)(i)	<p>One reason given</p> <p>Any one from:</p> <ul style="list-style-type: none"> • It is transparent • Waterproof • It is tough / strong / durable enough / safe • It is easy to cut to shape • It can be fixed to the lid <p style="text-align: right;">(1 x 1)</p>	(1)
3 (b)(ii)	<p>One reason explained</p> <ul style="list-style-type: none"> • It would provide more grip therefore it would be easier to remove the lid. • It would improve appearance therefore this would increase sales / satisfaction • To help partially sighted users locate the lid <p style="text-align: right;">(2 x 1)</p>	(2)

3 (c)(i)	<p>One reason given</p> <p>Any one from:</p> <ul style="list-style-type: none"> • Tough • Durable • Flexible / easily folded • Easy to clean • Lightweight • Easily joined • Easily cut • Waterproof • Strong • Cost effective <p style="text-align: right;">(1 x 1)</p>	(1)
3 (c)(ii)	<p>One problem described</p> <ul style="list-style-type: none"> • The ink will not dry / soak in and it will smudge / wipe off. • It will smudge and look bad <p style="text-align: right;">(2 x 1)</p>	(2)
3 (c)(iii)	<p>One advantage explained</p> <ul style="list-style-type: none"> • It would become tougher / stronger / more durable therefore it would protect the contents more / last longer. <p style="text-align: right;">(2 x 1)</p>	(2)
Total for question		11
Total for Paper		44