National
Qualifications
RESOURCE

X835/76/01 Graphic Communication

Marking Instructions

Please note that these marking instructions have not been standardised based on candidate responses. You may therefore need to agree within your centre how to consistently mark an item if a candidate response is not covered by the marking instructions.

©

General marking principles for Higher Graphic Communication

Always apply these general principles. Use them in conjunction with the specific marking instructions, which identify the key features required in candidates' responses.

(a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.

(b) If a candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your team leader.

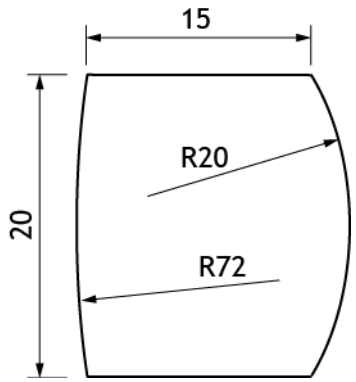
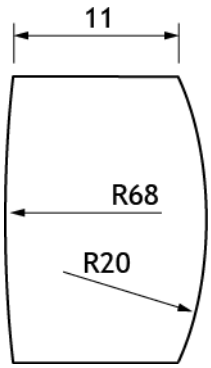
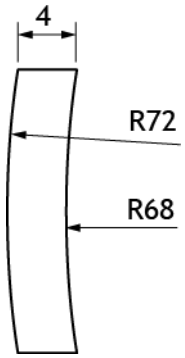
(c) For 'Describe' questions
Candidates must provide a statement or structure of characteristics and/or features, not just an outline or a list. For example they can refer to a concept, experiment, situation or facts in the context of and appropriate to the question. The number of marks available for a question indicates the number of factual/appropriate points required.

(d) For 'Explain' questions
Candidates must relate cause and effect and/or define relationships. This must be in the context of the question, or a specific area within the question.

(e) For 'Compare' questions
Candidates must demonstrate knowledge and understanding of the similarities and/or differences between things, methods, or choices. This must be in the context of the question, or a specific area within the question.

(f) Candidates can respond to any question using text, sketching, annotations or combinations of these. Award marks for the information conveyed. Do not award marks for the quality of sketching.

Marking instructions for each question

Question			Expected answer	Max mark	Additional guidance
1.	(a)	(i)	• Sketch profile A (below) with dims and Extrude 20mm  • Create profile B (below) with dims on centre work plane and extrude subtract below profile 10mm (5mm each direction)  • Create dia5 circle on work plane 4mm offset from side and extrude profile inwards to meet curved face • Extrude subtract dia3 hole in middle, positioned 12mm from back curve. Apply thread to one of the holes.	**4**	• Or extrude profile A 5mm, extrude profile shown below 10mm in correct position, then repeat profile A and extrude 5mm to give correct shape  • if using loft instead of extrude, candidates must describe same profiles and offset work planes at correct distances for **2 marks** • Extruding 4mm inwards is not long enough as curve extends beyond 4mm from plane, hence candidate must describe extruding in to meet curved face. 'To Next/To Next Face' is acceptable.
		(ii)	Dimension: X 139·5mm Dimension: Y 198mm Dimension: Z 120mm	**3**	**1 mark** per correct answer
	(b)		• 'Centre axis' circular boss and inside of hole • 'Centre axis' inside curve of frame and curved side of bracket • 'Orient' flat surface on top of each component to position vertically.	**3**	

Question			Expected answer	Max mark	Additional guidance
2.	(a)		• Sketch triangular profile and on a perpendicular plane sketch path of 5mm horizontal, 15mm @ 4° and 5mm @ 11° • Extrude along a path command • On same perpendicular plane as path, sketch triangular profile @ 11°, with top of triangle at the end of the path. **Either** • Draw centre line @ 11°, distance of 21·75mm from centre of triangle and revolve triangular profile **OR** • Draw 40·5 dia circle on bottom plane of triangle and extrude along a path using triangular profile and circle as path.	**4**	
	(b)		• Loft/extrude dia5mm circle to create 5mm cylinder **and** loft/extrude to create 5mm x 80mm cuboids on both sides of 'twist' **(1 mark)** • Create 5mm profiles on work planes 20mm apart and describe 'rails' connecting corner vertexes diagonally **(1 mark)** • Loft command **(1 mark)**	**3**	If using loft rather than extrude, both profiles and offset planes must be described with correct distances. Candidates not expected to describe the creation of the thread at the end of the stem as no marks are awarded for this.
	(c)		• Correct profile with dimensions of hatched area **(1 mark)** • Revolve command **(1 mark)** • Three diameter 5mm profiles described and correct dimensions 11,15 and 15mm **(1 mark)** • Radial array command, 6 repetitions at 60 degrees **(1 mark)**	**4**	

Question			Expected answer	Max mark	Additional guidance
3.	(a)	(i)	• Separates logo graphic into different sections thin/narrow blue lines help to emphasise the red numbers • Vertical dotted lines separate red text at the top of the page • Lines in shape of inward arrows draw attention to headings. • Dotted lines connect starter names to price. • SHAKE IT! emphasised by dotted lines above and below • Narrow white lines on the top of the blue colour fill highlight the top corner	**2**	Any two
		(ii)	• Any two instances of vertical or horizontal alignment between two or more graphic/text elements on publication.	**2**	For **each mark**, candidate must state which two elements are aligned, and how.
		(iii)	• Contrast with serif/sans serif/ script typefaces • Contrast between large/bold and small typefaces • Reverse effect with text creates contrast • Square shapes/straight lines contrast with circular text • Contrast between blue/red • Contrast between chequered pattern and solid fill colour	**3**	Any three
		(iv)	• Sausage on fork image has increased in value (decreasing the tint/saturation of the colour) • Image has high value creating contrast with the circular text, allowing the text to be read easier • High value of chequered pattern in contrast with low value blue colour fills	**2**	Any two

Question			Expected response	Max mark	Additional guidance
3.	(a)	(v)	• Repeated use of the red and blue colours • Repeated use of the checkered tablecloth pattern. • Repeated use of the vertical blue lines on the numbering • Repeated use of the dotted red lines • Repeated use of the sans serif font • Abstract shapes overlapping • Similar sized text boxes for describing menu items.	**2**	Any two
		(vi)	• Grid structure used to align hot dogs, main meals and the grill items in columns. • Grid structure used to align local produce, freshly made and fair trade items • Menu is divided into equal sections, making it easier on the eye for reading • Grid creates consistency/visual harmony throughout menu • Helps to guides the readers eye from column to column, giving a clear order in which to read the menu.	**2**	Any two
	(b)		• .DXF allows the logo to be opened and edited in 2D CAD software • .DXF allows for scalability without pixelation • .DXF format can be used easily with CAD/CAM software. • Smaller file size than a .jpg file	**2**	Any two
3.	(c)		• Watermarking is a means of protecting the intellectual property of the company • It can also act as an advertisement for the company as it contains their logo and brand identity (it can potentially lead to future business) • To stop others from selling or passing off the images as their own • Prevents use of image without payment being made.	**2**	Any two

Question			Expected response	Max mark	Additional guidance
4.	(a)	(i)	Graphic 1 • Preliminary 3D sketch showing a realistic representation of how the water feature will look • Useful for users who cannot read or interpret 2D orthographic drawings	**1**	
		(ii)	Graphic 2 • Production drawing clearly showing how the pipe components fit together	**1**	
	(b)		R240 + R225 = **465** R225 + R225 = **450**	**2**	
	(c)		R150 + R125 = **275** R225 – R150 = **75**	**2**	
	(d)		Offset	**1**	
	(e)		• 3D models can be used to simulate different material testing • 3D models can be used to cost the flume in different materials • 3D model can be used to show water flow through the flume • 3D model can test different weights and pressure.	**2**	Any two
	(f)		• Diameter of profile 900mm, from axis @ 2250mm, helix command (**1 mark**) • Length of flume 3 revolutions of profile, or length 6750mm (**1 mark**) • Shell to thickness 20mm, remove both ends (**1 mark**)	**3**	If candidate uses donut profile dia 900mm and 860mm, give mark for shell.
	(g)		• IGES file	**1**	
	(h)		• Bottom up modelling components are made as individual parts • Bottom up modelling components are assembled part by part.	**2**	

Question			Expected response	Max mark	Additional guidance
4.	(i)	(i)	• Ease of collaboration within company whilst out of the office • Potentially available on demand anywhere • Many staff can collaborate simultaneously on the same CAD library, files, designs • Use with mobile devices, phones — tablet	**2**	Any two
		(ii)	• Cloud could be hacked • Intellectual property stolen • Digital rights management issues • Requires access to internet at all times • Cloud servers may fail • Virus infection of the system/ software.	**2**	Any two
5.	(a)		• The wave line suits the theme and context • The wave line divides the page • Sunshine graphic shape suits the theme/draws attention/adds interest • Sunshine graphic divides up small text on front page • Repeated wave shape adds rhythm/unity • Rectangular coloured blocks with text add interest/contrast with curves of waves and slides • Curved shapes lead your eye to different parts of the page.	**3**	Any three
	(b)		• Layering of tidal reef logo across coloured text boxes • Drop shadow on tidal reef logo • Drop shadow on 'it's tidal time!' text • TIDAL REEF flow text overlapping logo and background photo • Sun graphics layered on background images	**2**	Any two

Question			Expected response	Max mark	Additional guidance
5.	(c)		• Large graphics of the swimmers/flumes draw your attention to the theme of the brochure. • Large typeface used to draw attention to the subheadings and create emphasis. • Larger rectangle used to contain a larger amount of body text	**2**	Any two
	(d)		• Sunbeams in tidal wave • Sunbeams in sunshine graphic • Water/bubbles texture in blue background • Sand texture on yellow background • Water splashes on front water image.	**3**	Any three
	(e)		Flow text along a path	**1**	
	(f)		• Use eco-friendly inks for example soya inks • Use recycled paper for all printing • Be efficient with spacing/ alignment on printed materials • Recycle any waste printed products they didn't use.	**2**	Any two
	(g)		Feature A - Registration Marks Feature B - Crop Marks	**2**	
	(h)		Feature A **(1 mark)** • alignment of paper • alignment for CMYK ink process • prevents overlap of colours resulting in blurred text and images. Feature B **(1 mark)** • stops white border around edge of page being shown • cut off image for dramatic effect • image goes right to the edge of the page • allows edge to edge printing	**2**	
	(i)		• White tidal graphic • Sunshine graphic • Photograph on background.	**1**	Any one

[END OF MARKING INSTRUCTIONS]