



National
Qualifications
2018

2018 Graphic Communication

Higher

Finalised Marking Instructions

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General marking principles for Higher Graphic Communication

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this paper. These principles must be read in conjunction with the detailed marking instructions, which identify the key features required in candidate responses.

- (a) Marks for each candidate response must **always** be assigned in line with these general marking principles and the detailed marking instructions for this assessment.
- (b) Marking should always be positive. This means that, for each candidate response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding: they are not deducted from a maximum on the basis of errors or omissions.
- (c) If a specific 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.
- (d) For each candidate response, the following provides an overview of the marking principles. Refer to the specific marking instructions for further guidance on how these principles should be applied.
 - (i) Questions that ask candidates to **describe**
Candidates must provide a statement or structure of characteristics and/or features. This should be more than an outline or a list. Candidates may refer to, for instance, a concept, experiment, situation, or facts in the context of and appropriate to the question. Candidates will normally be required to make the same number of factual/appropriate points as are awarded in the question.
 - (ii) Questions that ask candidates to **explain**
Candidates must generally relate cause and effect and/or make relationships between things clear. These will be related to the context of the question or a specific area within a question.
 - (iii) Questions that ask candidates to **compare**
Candidates must generally demonstrate knowledge and understanding of the similarities and/or differences between, for instance, things, methods, or choices. These will be related to the context of the question or a specific area within a question.
- (e) Candidates can respond to any question using text, sketching, annotations or combinations where they prefer. No marks shall be awarded for the quality of sketching. Marking will relate only to the information being conveyed.

| Question | | Expected response | Max mark | Additional guidance |
|----------|---------|--|----------|--|
| 1. | (a) | <ul style="list-style-type: none"> Parts are modelled individually They can be inserted into an assembly to position and fix them in relation to other components Any changes to a part will need to be done by editing it individually | 2 | Any two points. |
| | (b) (i) | Major axis 126 mm | 1 | |
| | (ii) | Minor axis 40 mm | 1 | |
| | (c) | <ul style="list-style-type: none"> Sketch/description of profile and extrude 30mm Dia 40mm circle in correct position, extrude 10mm Dia 15mm circle in correct position, extrude subtract material 20mm Fillet radius 5mm, chamfer 5mm | 4 | 1 mark for each. |
| | (d) | <ul style="list-style-type: none"> Describe the profile (dia 15mm circle), describe the path with dimensions shown on elevation (1 mark) Extrude/sweep along a path command (1 mark) Shell 2.5mm wall thickness (1 mark) | 3 | Shell not necessary if candidate has drawn 2 circles dia 10 and dia 15mm as the profile. The end sealed with 2.5mm wall thickness. |
| | (e) | <ul style="list-style-type: none"> Profile sketch with all dimensions (1 mark) Describe centre axis (1 mark) Revolve command (1 mark) | 3 | Horizontal 5mm, 7.5mm Vertical 7.5mm, 23mm 37.5mm Radius 15mm |
| | (f) |  <p> $\varnothing 10.15$ $\varnothing 9.75$ </p> <p> $+0.15$ $\varnothing 10 -0.25$ </p> <p>TOLERANCE APPLIED TOLERANCE APPLIED</p> | 2 | 1 mark for correct sizes. 1 mark for correct BS convention. Either method expectable. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|------|--|----------|---|
| 1. | (g) | | <ul style="list-style-type: none"> Describe the grip profile, dia 44 x 5mm, on correct workplane (1 mark) Extrude 20mm long (1 mark) Radial array command, repeat 12 times (1 mark) | 3 | No mark for rectangular profile, the top is curved. |
| | (h) | (i) | Find the radial array command on the modeling tree. Edit/change the value. | 1 | No mark for stating change from 12 to 10. |
| | | (ii) | It would take longer to redo the whole grip part than to edit the command. | 1 | No mark for stating 'quicker, faster'. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|------|---|----------|-----------------------------|
| 2. | (a) | (i) | STEP file | 1 | Accept .stp file extension. |
| | | (ii) | <ul style="list-style-type: none"> • These files can be opened in any 3D modelling packages • They allow the manufacturer to make edits/changes, if required prior to manufacture | 1 | One for 1 mark. |
| | (b) | | <ul style="list-style-type: none"> • Edits can be made to the original graphics • Vector graphics will retain their quality if enlarged • Vector files are smaller in file size | 1 | One for 1 mark. |
| | (c) | | <ul style="list-style-type: none"> • Components can be called from the library rather than drawn from scratch • Quality control, less errors • Components drawn to common standards • Technicians can share CAD library resources | 2 | Any two. |
| | (d) | (i) | 3 rd angle projection | 1 | |
| | | (ii) | <ul style="list-style-type: none"> • It allows the company to see the projection method used within the drawing • This will assist with the interpreting of the information given and the view positioning | 1 | One for 1 mark. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|------|---|----------|--|
| 3. | (a) | (i) | Promotional - allows manufacturer to advertise their products/services to potential customers. | 1 | |
| | | (ii) | Production - aids with assembly of the product. | 1 | |
| | (b) | | <ul style="list-style-type: none"> • Gives an accurate real-life representation • Can be quickly produced showing how products would look in the customer's own home without the need to produce a detailed manual sketch • Designs can be shared electronically without the need to scan • Renders showing different colour/material combinations can be produced instantly • Designs can be easily modified • Templates can be created for multiple designs | 2 | <p>Can include dimensions, real products placed in the environment.</p> <p>Any two.</p> <p>Speed of production has to be justified for a mark.</p> |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|------|---|----------|--|
| 4. | (a) | | 16mm | 1 | |
| | (b) | (i) | <p> ★ 1 mark - Ceiling Fixing Mount ▲ 1 mark - Fixing Cover ● 1 mark - Mounting Bracket ◆ 1 mark - Hatching into thread </p> | 4 | <p>1 mark for each correctly sectioned component.</p> <p>No marks deducted for extra areas hatched.</p> <p>Each component which has two areas hatched, the hatching style must match.</p> <p>Clear distinction between components should be reflected in the hatching style applied.</p> <p>Hatching must go into thread of hole and not onto the thread of the bolt for the 1 mark.</p> |
| | | (ii) | <p>STRAIGHT KNURLING (1 mark)</p> <p>DIAMOND KNURLING (1 mark)</p> | 2 | |
| | (c) | (i) | Pitch Circle Diameter | 1 | |
| | | (ii) | 30 degrees | 1 | |

| Question | | Expected response | Max mark | Additional guidance |
|----------|-----|--|----------|---------------------|
| 5. | (a) | <p>Justification of repetition of shapes on graphic:</p> <ul style="list-style-type: none"> • circles/lines in background • white lines dividing columns down middle of page • yellow bars containing headers • double yellow arrows • shape for batteries • white figures. | 2 | Any two. |
| | (b) | <ul style="list-style-type: none"> • Divides columns into equal sections • Grid creates consistency/visual harmony throughout publication • Helps to guides the reader's eye from column to column • Easier to read the publication | 2 | Any two. |
| | (c) | <ul style="list-style-type: none"> • Repetition of colour yellow throughout publication • Repetition of blue text • Repetition of white text and graphics • Repetition of same font/typeface throughout publication • Use of white line for 'cable' tightly wrapping around columns, creates unity through close proximity • Repeated use of 'silhouette' figures • Repetition of white drop caps | 2 | Any two. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|--|---|----------|--|
| 5. | (d) | | <ul style="list-style-type: none"> • Drop shadow behind 'Energy Bill' gives impression of depth • The background layer creates impression of depth • Value of background creates depth | 2 | |
| | (e) | | <ul style="list-style-type: none"> • Alignment of text • Alignment of line • Alignment of shape • Alignment of vertical lines on 'cable' • Alignment of battery symbol | 2 | Two instances of alignment for two marks. Justification of which two elements are in alignment for each mark. |
| | (f) | | <ul style="list-style-type: none"> • Use of drop cap at the start of each paragraph • Enlarged text for 'Energy Bill' creates emphasis • Drop shadow on 'Energy Bill' • Blue text on yellow flash bar | 2 | Any two. |

| Question | | Expected response | Max mark | Additional guidance |
|----------|-----|--|----------|---|
| 6. | (a) | <ul style="list-style-type: none"> • Allows instant access to hyperlinks/websites that the publication is talking about • Multiple publications can be stored on an electronic device and referenced to at any time without cluttering up a home/office • When viewing, the information can be enlarged for better clarity or closer inspection, change size of text • Can be shared across a number of devices for the owner • Sharing elements/videos/images on social media or email • Can copy and paste content • No need to visit shop or wait for it to be delivered • Can be read in the dark • Available in different languages • Online content can have the most 'up to date' information | 2 | <p>Any two.</p> <p>No mark for cost as this is not quantifiable.</p> <p>Response must be in relation to the consumer.</p> |
| | (b) | <ul style="list-style-type: none"> • Better business opportunities for the company with different countries • More people can access and understand the written information on the website | 1 | Response must be in relation to the company. |
| | (c) | <ul style="list-style-type: none"> • Clarity and readability • Physical size of device will determine size of text being viewed • Typeface may reflect style of magazine/target market | 2 | |
| | (d) | <p>Serif font - the letters have decorative strokes on the ends of the characters.</p> <p>Serif</p> | 1 | A sketch is acceptable. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|------|---|----------|---|
| 6. | (e) | | <ul style="list-style-type: none"> Information can be accessed regardless of location Can be accessed and shared with all the web designers Can be accessed on multiple devices or platforms Information can be downloaded/uploaded at any time Portable devices with less storage capacity can access the information as items will be saved in the cloud, not the device | 2 | Any two. |
| | (f) | (i) | <ul style="list-style-type: none"> Used on the main body text rectangle. Allows the graphic to be seen and the text still to be read | 1 | Cause and effect of the transparency for 1 mark. |
| | | (ii) | <ul style="list-style-type: none"> Description of orange colour matched elements creating unity in the document | 1 | Cause and effect of the colour picking for 1 mark. |
| | (g) | | <ul style="list-style-type: none"> The contrast in text size creates emphasis To lead the readers eye to the start of a paragraph/section of text | 2 | Any two. |
| | (h) | | <p>Identification</p> <ul style="list-style-type: none"> Title 'Bright Spark' Company logo of Eiffel Tower Company name Paris Text on R-H side of DTP document QR codes <p>Effect</p> <ul style="list-style-type: none"> Creates contrast with black background Adds emphasis to company name and logo Catches the eye of the reader | 2 | 1 mark for identification of a use of reverse. 1 mark for the effect of the reverse. |

| Question | | | Expected response | Max mark | Additional guidance |
|----------|-----|--|---|----------|---------------------|
| 6. | (i) | | <ul style="list-style-type: none"> • Centre justified text used on R-H side of page, fits with the centre alignment of graphics on this side • Fully justified text on main body text, give clear straight edges that suit the rectangle shape it is placed within, adds structure and formality to the page • Creates contrast between the two types of justification | 1 | Any one. |
| | (j) | | <ul style="list-style-type: none"> • Used to separate areas of the magazine page • Creates unity with the orange colour • Creates contrast in shape with the wavy flame lines in the background • Creates contrast with the horizontal flashbar at the bottom of the page | 2 | Any two. |

[END OF MARKING INSTRUCTIONS]