MATSEC
Examinations Board


Specimen Papers
SEC 29 Graphical Communication

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## Specimen Assessments

## Specimen Assessments: Controlled Paper Level 1-2



## SUBJECT:

PAPER NUMBER:
DATE:
TIME:

## Graphical Communication

 Level 1 - 22 hours

## Instructions

- Write your index number.
- Attempt ALL questions.
- All answers are to be drawn accurately, with instruments, unless otherwise stated.
- All construction lines MUST be left on each solution to show the method employed.
- Drawing aids may be used.
- Calculators are alllowed.

Information

- All dimensions are in millimetres.
- Estimate any missing dimensions.
- Marks will be awarded for accuracy, clarity and appropriateness of construction.
- This paper carries a total of 100 marks.

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |

Total:

1. Label the following equipment on the lines below the pictures.
a)

$\qquad$
(1)
c)

(1)
e)

(1)
b)

(1)
d)

(1)
f)

(1)
(Total: 6 marks)
2. Match the following labels with the figures:
a) Isometric view

b) Equilateral triangle

c) Regular pentagon
d) Ellipse

e) Oblique projection

f) Regular hexagon

(Total: 6 marks)
3. Draw the following geometrical constructions.
a) Bisect line AB. (2) Bisect angle EDC.
(Total: $\mathbf{1 2}$ marks)
4. a) Draw the pattern shown below.
b) Shade the final drawing using 3 different colours.

Note: Start your drawing by constructing a regular hexagon in a circle R20 mm at A.

(Total: 12 marks)

5 Two incomplete safety signs are given below.
a) Label the name for each sign in the spaces provided.
b) Colour the signs according to ISO 7010.

$\qquad$

$\qquad$
c) Underline the TWO correct types of signs, with reference to the above.
6. On the given isometric grid, draw the following solid starting from point A .

${\underset{A}{A}}^{L}$
(Total: 12 marks)
7. a) On the lines below, label the $1^{\text {st }}$ and $3^{\text {rd }}$ angle orthographic projection:

b) In the given grid squares below, construct the solid in $1^{\text {st }}$ angle orthographic projection: (9)



END


FRONT


PLAN
8. a) Describe what you understand by warm and cold colours, in about 40 words.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
b) Label the shapes below as either geometric, organic or abstract.

$\qquad$
(1) $\qquad$ (1)
c) Describe the characteristics of a Venn diagram in about 40 words.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
9. a) Match the tool names given to their icon found on the tools panel:
i) quick selection;
ii) lasso;
iii) pen;
iv) brush.

b) Define the ideas generation technique SCAMPER by listing what each letter in the acronym stands for.

P

E

R
10. a) Draw the profile of the ellipse in freehand using the given points of intersection.

b) From the ellipse shown above, measure and write down the length of the major axis and minor axis.

Length of major axis = $\qquad$ (1) Length of minor axis = $\qquad$ (1)
c) Estimate the area of the ghost using the counting the squares method. Write your answer in the space provided.


Area of ghost $=$ $\qquad$ (2)
(Total: 6 marks)
11. a) Label the solids shown below.

$\qquad$

1) $\qquad$ (1) $\qquad$ (1)
b) The figure below shows a rectangular-base prism.

Draw the development to scale, (including the glue-flaps) of the prism according to the dimensions given.


## Specimen Assessments: Marking Scheme for sample Controlled Paper Level 1-2

| SUBJECT: | GRAPHICAL COMMUNICATION |
| :--- | :--- |
| PAPER NUMBER: | LEVEL $\mathbf{1 - 2}$ |
| DATE: |  |
| TIME: | 2 HOURS |

Question No. 1
Equipment

| Labelling correctly the following equipment |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Set-Squares | 1 |  |  |  |
| Protractor | 1 |  |  |  |
| Board | 1 |  |  |  |
| Drafting head / Rotating set-squares / Mechanical Arm | 1 |  |  |  |
| French curves | 1 |  |  |  |
| T-square | 1 |  |  |  |
|  |  |  |  | 1 |

Question No. 2 Shapes and projections


Question No. 3
Geometrical constructions

| Bisecting line AB | 2 |
| :--- | :---: |
| Bisecting angle EDC | 2 |
| Dividing line FG into 5 equal parts | 2 |
| Dividing line HI in the ratio of 1:2:3 | 2 |
| Constructing an angle of $60^{\circ}$ | 2 |
| Bisect sloping line JK | 2 |
| Total marks for question No. $\mathbf{3}$ | $\mathbf{1 2}$ |

## Question No. 4

The Hexagon

| Drawing a circle on centre A R20 | 1 |
| :--- | :---: |
| Constructing the first hexagon inside the circle | 2 |
| Constructing the other 5 hexagons | 5 |
| Shading the design using 3 different colours | 3 |
| Neatness and accuracy | 1 |
| Total marks for question No. $\mathbf{4}$ | $\mathbf{1 2}$ |

Question No. 3
Question No. 4


## Question No. 5

## Safety signs

| Label the signs "NO DOGS" and "ELECTRICITY HAZARD" | 2 |
| :--- | :---: |
| Drawing the dog icon in black | 1 |
| Drawing the prohibition outline in red | 1 |
| Neatness and accuracy | 1 |
| Drawing the electricity icon in black | 1 |
| Drawing the warning outline in black | 1 |
| Drawing the background in yellow | 1 |
| Underlining the WARNING and PROHIBITION types of signs | 2 |
| Total marks for question No. $\mathbf{5}$ | $\mathbf{1 0}$ |

Question No. 6

## Isometric

| Drawing the right side (L-shape) | 2 |
| :--- | :---: |
| Drawing the top square | 2 |
| Drawing the top sloping surface | 2 |
| Drawing the left side sloping recess | 3 |
| Outlining the object in bold | 2 |
| Neatness and Presentation | 1 |
| Total marks for question No. $\mathbf{6}$ | $\mathbf{1 2}$ |

Question No. 5


NO DOGS
$\qquad$ (1)


ELECTRICITY HAZARD
(1)

Question No. 7
Orthographic projection

| Labeling the $3^{\text {rd }}$ Angle | 1 |
| :--- | :---: |
| Labeling the $1^{\text {st }}$ Angle | 1 |
| For each view: |  |
| Drawing the correct profile | $2,2,2$ |
| Neatness and Accuracy | $1,1,1$ |
| Total marks for question No. $\mathbf{7}$ | $\mathbf{1 1}$ |


$3^{\text {rd }}$ angle

$1^{\text {st }}$ angle


FRONT


PLAN

Question No. 8
Graphic design

| Describing warm and cold colours and mentioning some the following points: <br> - Warm colours feel warm because they remind us of the sun, fire, etc. <br> - Cool colours feel cool because they remind us of water, ice, etc. <br> - Warm colours advance, while cool colours recede in a composition <br> - Cool and warm colours can be used together to create contrast | 3 |
| :---: | :---: |
| Labelling the shapes (one mark each) | 3 |
| Describing the characteristics of a Venn diagram and mentioning the following points: <br> - A Venn Diagram consists of two or more overlapping circles <br> - The overlapping parts of each circle represent possible relations between each set (as represented by each circle). | 3 |
| Total marks for question No. 8 | 9 |


abstract

geometric

$\qquad$ (1)

Question No. 9
Graphic design

| Labelling the tools (one mark each) | 4 |
| :--- | :---: |
| Listing what each letter in SCAMPER stands for ( $1 / 2$ mark each) | 3 |
|  |  |
| Total marks for question No. 9 | $\mathbf{7}$ |


| i) Quick Selection; | Substitute |
| :---: | :---: |
| ii) Lasso; $\longrightarrow \bigcirc, \Theta^{\text {, }}$ | Combine |
| 吅, $\%$, | Adjust |
| iii) Pen; + \&, $d$. | Modify |
| 2.8. | Put to other uses |
| 2, $\square$ | Eliminate |
|  | Reverse |
| A. 1. |  |

Question No. 10
Ellipse and Area

| Drawing the profile using freehand | 1 |
| :--- | :---: |
| Neatness and accuracy | 1 |
|  |  |
| Length of Major axis = 100 | 1 |
| Length of Minor axis $=60$ | 1 |
|  | Evidence that the student counted the whole squares |
| Evidence that the student counted the partial squares | $1 / 2$ |
| Correct answer $=10 \mathrm{~cm}^{2}(+/-1)$ | $1 / 2$ |
|  | 1 |
| Total marks for question No. 10 | 6 |




$$
\text { Area of ghost }=\quad 10 \mathrm{~cm}^{2}
$$

Question No. 11
Solid geometry

| Label the solids as: |  |
| :--- | :---: |
| Cube | 1 |
| Pentagonal-base pyramid | 1 |
| Cylinder | 1 |
| Cone | 1 |
|  | 1 |
| Drawing the base 15X30 | 2 |
| Drawing the two sides 15X20 and the two sides 30X20 | 1 |
| Drawing the top 15X30 | 1 |
| Drawing the folding lines and the glue-flaps |  |
|  | $\mathbf{9}$ |



Cube


Pentagonal-base
(1) pyramid


Cylinder
(1) $\qquad$ Cylinder (1) Cone
 Cone



## Question 3.

Figure 3 shows an artist's palette
The drawing consists of a set of touching circles and a semi-ellipse.
$A B$ is half the major axis; 85 mm long and $A C$ is half the minor axis; 50 mm long.
a. On the given start-lines, construct the palette. (10)
a. On the given start-lines, construct the palette,
b. Draw the convention symbol to show that the
palette is made of wood
(2)


Fig. 3

Note: Show all workings.


## Question 4.

Figure 4 shows the profile of a modern coffee machine (moka) in orthographic projection.
The body of the machine is made out of two hexagonal prisms intersecting a semi-cylinder
a. Complete the end elevation by plotting the curve of intersection between the semi-cylinder and the upper prism.
(Total: 12 marks)




Two orthographic views and an incomplete front elevation of a steel bracket are given.
On the given profile construct a sectional front elevation of the bracket on the cutting plane A - A.
A pictorial view of the bracket is given in figure 5


GRAPHICAL COMMUNICATION

## Question 6.

Figure 6 shows a monument in orthographic projection. The monument features one door and one window.

On the given base-line $X_{1}-Y_{1}$ and from the direction of arrow A at $45^{\circ}$, project an auxiliary view of the monument.

Note: Show all constructions.
(Total: 15 marks)


1

## Question 7.

Figure 7 shows a historical building in orthographic projection.
a. On the given start lines and using the given vanishing points, construct an estimated perspective view of the building.
b. Draw the convention symbol to show that the two lateral windows are made of glass.

Note: Show all constructions.


Question 8.
The following is a logo in grayscale used by a film production company.


## LemonadeFilms

a. Describe the use and purpose of negative space and hierarchy in the logo.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
b. Name a suitable colour to improve the logo and explain your choice.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
c. The acronym CAD stands for $C$ $\qquad$ A $\qquad$ D $\qquad$
d. Choose and write the correct editing command from the table below under its respective icon (the first one has been given)

e. Mention TwO advantages of using CAD software
f. Explain briefly what happens in Model space and Layout space.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
(Total: 12 marks)

Specimen Assessments: Marking Scheme for sample Controlled Paper Level 2-3

SUBJECT:
PAPER NUMBER:
DATE:
TIME:

GRAPHICAL COMMUNICATION
LEVEL 2 - 3

2 HOURS

Question No. 1
Involute of a square

| Construct 4 radial lines around square ABCD | 2 |
| :--- | :---: |
| Construct Involute around square ABCD | 2 |
| Construct 4 radial lines around square GBEF | 2 |
| Construct Involute around square GBEF | 2 |
| Total marks for question No. 1 | $\mathbf{8}$ |

Question No. 2
True Lines

| Well-proportioned freehand front elevation | 2 |
| :--- | :---: |
| Well-proportioned freehand half depth (at 45 ${ }^{\circ}$ ) | 2 |
| Finishing off the drawing | 2 |
| Shading | 4 |
| Total marks for question No. 2 | 10 |

Question No. 1
Question No. 2


## Question No. 3 <br> Circles in Contact and Ellipse

| Constructing the semi-ellipse having major axis 170 mm and minor axis 100 mm using any <br> preferred geometric method | 4 |
| :--- | :---: |
| Drawing the R 25 and R 15 arcs | 1 |
| Drawing the R 85 arc from A | 1 |
| Locate by construction the centre of arc R 12 and draw it | 2 |
| Locate by construction the centre of arc R 135 and draw it | 2 |
| Convention symbol showing the material (wood) | 2 |
| Total marks for question No. $\mathbf{3}$ | $\mathbf{1 2}$ |

## Question No. 4

## Intersection of solids

| Plotting the curve of intersection between the semi-cylinder and upper prism | 3 |
| :--- | :---: |
| Drawing the curve of intersection | 2 |
| Construct the surface development of side AB | 1 |
| Construct the surface development of Sides BX and XY | 4 |
| Neatness and accuracy | 2 |
| Total marks for question No. $\mathbf{4}$ | $\mathbf{1 2}$ |

Question No. 3
Question No. 4



Question No. 5
Sectioning

| Projecting lines from the plan and end elevation | 1 |
| :--- | :---: |
| Drawing the left through hole R15 mm | 1 |
| Drawing the correct inside profile (left space and 2 webs) | 3 |
| Hatching the profile (without hatching the webs, incl. 3 small fillets) | 5 |
| Drawing the centre line for side hole R8 mm | 1 |
| Neatness and accuracy | 2 |
| Total marks for question No. 5 | $\mathbf{1 3}$ |

Question No. 6
Auxiliary

| Projecting lines from the plan to the front | 1 |
| :--- | :---: |
| Projecting lines from the front to the auxiliary plan (at $45^{\circ}$ ) | 1 |
| Draw the lower body | 4 |
| Draw the octagonal dome | 4 |
| Project the door and window | 2 |
| Draw the outline of the door (incl. middle line) and the window | 2 |
| Neatness and presentation | 1 |
| Total marks for question No. $\mathbf{6}$ | $\mathbf{1 5}$ |

Question No. 5


Question No. 6


Question No. 7
Perspective

| Drawing the horizon (between VP1 and VP2) | 1 |
| :--- | :---: |
| Projecting lines from the vanishing points to point X and drawing an estimated two-point <br> perspective crate / for shortening of the measurements | 2 |
| Drawing the main building | 2 |
| Drawing the sloping roof of the main building | 2 |
| Drawing the main door | 1 |
| Drawing the two side windows | 2 |
| Drawing the side bell tower and the pyramidal roof | 2 |
| Drawing the window on the side bell tower | 2 |
| Drawing the conventional symbol to show that the lateral windows are made of glass | $\mathbf{2}$ |
| Proportion and accuracy | $\mathbf{2}$ |
| Total marks for question No. $\mathbf{7}$ | $\mathbf{1 8}$ |

Question No. 7


Question No. 8
Graphic design

| Describing the use of negative space, colour and hierarchy by mentioning the following points: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| a. The negative space within the lemon, which is being used to produce a shape resembling a film reel. |  |  |  |  | 3 |
| b. Any colour would be accepted, provided that the candidate justifies the choice. |  |  |  |  | 2 |
| c. Computer Aided Drafting/ Drawing/ Design |  |  |  |  | 1 |
| d. |  |  |  |  | 2 |
| ERASE | COPY | MOVE | TRIM | MIRROR |  |
| $07$ | $\Delta \mid \Delta$ | $6$ | $\stackrel{t}{+}+$ | $-1-$ |  |
| COPY | MIRROR | ERASE | MOVE | TRIM |  |
| e. Example: easy to edit, accuracy, etc ... Accept any other relevant answer. |  |  |  |  | 2 |
| f. Model space - To design in the model space. Layout space - To set area for printing. |  |  |  |  | 2 |
| Total marks for question No. 8 |  |  |  |  | 12 |

Specimen Assessments: Private Candidates Controlled Paper 1-2-3

## MATRICULATION AND SECONDARY EDUCATION CERTIFICATE

EXAMINATIONS BOARD
SECONDARY EDUCATION CERTIFICATE LEVEL SAMPLE PRIVATE CANDIDATE PAPER

SUBJECT:
PAPER NUMBER:
DATE:
TIME:

GRAPHICAL COMMUNICATION
LEVEL 1 - 2 - 3

2 HOURS

1) Jake is carrying out a portfolio at school and he has prepared the following front page \& research section;

| Section | Details |
| :--- | :--- |
| research |  |$\quad$| Area/theme title: Create a design that includes bisection and/or division of a line and/or |
| :--- |
| angles. |
| Related Lo's. By the end of this assignment I will be able to: |
| 1. construct perpendicular bisectors and angle bisectors using compasses; |
| 2. bisect and divide a line into a number of equal parts by construction. |
| Success criteria. The final drawings should: |
| 1. include two or more types of constructions; |
| 2. be an original design. |
| $3 . \quad$ be drawn in full colour using pencil colours; |
| Research: |$\quad$| Online research (Wikipedia): |
| :--- |
| In geometry, when we bisect a line or and angle, we divide it into two, four, eight, |
| sixteen etc. equal parts. |
| A line bisector produces a perpendicular line, which also makes a right angle. |
| A pair of compasses are ideal to produce a line or angle bisectors. |



Blue Angle is Bisected


Blue Line is Bisected


Page 34 of 52
1)
a. Fill in the following paragraph using the words below. The first one has been given.

| insights | solved | explore | learn | ideas | research | projects |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

_R is important because it provides students with new
$\qquad$ . Students encounter problems during their $\qquad$ and these can be $\qquad$ by conducting research. Research provides new $\qquad$ insights and
encourage students to $\qquad$ more.
b. Indicate the following statements as TRUE / FALSE.
i. It is possible to bisect a line in 6 equal parts.
ii. A pair of compasses is an ideal instrument to bisect a line.
iii. A perpendicular bisector produces an angle of $90^{\circ}$.

TRUE / FALSE

TRUE / FALSE

TRUE / FALSE
c. The student coloured his design to satisfy the third success criteria. Describe what measures you would take to satisfy the other success criteria for this portfolio.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
2) You are required to design the shape of a toy using the following basic shapes; circles, squares, rectangles, triangles and polygons. The first two sketches have been given. Your design should feature the following items:
a. preparatory freehand sketches;
b. a chosen idea, drawn using instruments and colour;
c. an evaluation of the toy design.

Use the spaces given below as a guide through your design process.
Sketch 1:

Chosen idea (using instruments and colour):

## Self-evaluation:

Describe the toy that you designed in the chosen idea.
$\qquad$
$\qquad$
$\qquad$

Describe the process involved and the decisions taken to develop the design for the chosen idea.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Comment about the overall quality of the design for the chosen idea in terms of:

Neatness: $\qquad$

Proportion: $\qquad$

Describe ONE feature that you would change to improve Sketch 2.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
3) In Graphic Design we make use of basic visual principles, create icons and represent data using specialized software to communicate our ideas.
a. Circle the letter corresponding to the image that indicates depth of field.


B

C
b. Choose the pie chart amongst the examples given below and circle the correct letter.

c. List the TWO colours and the shape used in WARNING signs.
d. Describe TWO ways in which more emphasis could be placed on the words FRUIT FACTS in the image below using a combination of formal and visual elements (e.g. colour, scale, position, etc.) and Graphic Design principles.

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
e. A survey was carried out to find what types of film people prefer. Prepare a pie chart to show the following information from this survey:
i. $20 \%$ of people preferred sci-fi;
ii. $20 \%$ of people preferred horror;
iii. 5\% of people preferred drama;
iv. $25 \%$ of people preferred action;
v. $30 \%$ of people preferred comedy.

f. Design a key and colour the pie-chart accordingly.
g. Re-order the steps given below to describe the process of digitising an image.

|  | Scan the picture |
| :--- | :--- |
|  | Launch the scanning program |
|  | Save the image on your computer |
|  | Adjust scanning properties |

(Total: 18 marks)
4) A real-life bedroom photo is shown in two-point perspective below. The bedroom consists of basic furniture for two children and a parquet flooring.


This question continues on the next page.

Study the picture carefully and complete the Isometric drawing of this bedroom using the start lines provided. Include the following furniture items and features:
a. two single beds;
b. the parquet flooring;
c. a suitable patterned curtain to match the size of the window.

## Notes:

- You can use drawing instruments.
- The start lines, the book-shelf and the window have been given.
- Estimate any dimensions and include some freehand decoration.
- Apply rendering and/or shading to your drawing to show that the floor is made of wood (parquet).

(Total: 14 marks)

5) ACAD is a powerful modern digital tool which, amongst others, allows us to produce very accurate drawings. a. Match the sentences given.

ACAD is a computer aided drafting.

CAD stands for
PLOT command.

One of the features used in CAD is the
computer software.

To print a design we use the
TRIM command.

To delete unwanted lines we use the
COPY/PASTE command.
b. Name and state the function of the tools labelled below. Some have been given.


| Label | Name of tool | Function |
| :---: | :---: | :---: |
| A | NEW FILE | CREATES A NEW FILE |
| B | SAVE |  |
| C |  |  |
| D | MATCH PROPERTIES | APPLIES THE PROPERTIES OF AN OBJECT ONTO ANOTHER |
| E | PAN |  |
| F |  |  |
| G | DRAWS A LINE |  |
| H |  |  |
| I |  | DRAWS AN ELLIPSE |

(Total: 10 marks)
6) You are asked to design a poster for a beach party.
a. Select and write down the picture/feature that you would not include in your poster.

- a palm tree;
- a beach;
- music;
- a snow board;
- a non-alcoholic cocktail.
b. State TWO colours you would use for this poster.
c. Select the most appropriate font for the poster and explain your choice.

> 䄧each Farty
A

Beach
Party
B

Beach Parry

C
$\qquad$
$\qquad$
$\qquad$
d. By using the two photos below as examples, explain how you would crop and insert the images.

e. In the space below, draw a mock-up in colour of your beach party poster.

(Total: 14 marks)
7) The development shown below can be cut and folded to produce a solid model of a square-based prism.
a. On this development:

- indicate ONE bold line;
- indicate ONE fold line;
- draw the glue-flaps necessary so that when the pattern is cut and folded, it can be glued to form a square-based prism.

b. Indicate the following statements as TRUE / FALSE:
- The pattern shown above is also called a development.

TRUE / FALSE

- The pattern shown above is a one-piece development of a sphere. TRUE / FALSE
- A square-based prism has 8 faces.

TRUE / FALSE

- A square-based prism falls under the pyramid category of solids. TRUE / FALSE
c. Three developments are given below.
i. Circle the development that would produce a full development of a solid square-based prism if cut and folded.


A


B

C
ii. Explain why the remaining two are not the correct choices.
d. The development shown below can be cut and folded to produce a solid model of a hexagonal-based pyramid.
In the space provided below on the right, draw a freehand pictorial sketch of the assembled hexagonalbased pyramid.


MATRICULATION AND SECONDARY EDUCATION CERTIFICATE
EXAMINATIONS BOARD
SECONDARY EDUCATION CERTIFICATE LEVEL
MARKING SCHEME FOR SAMPLE PRIVATE CANDIDATE PAPER

| SUBJECT: | GRAPHICAL COMMUNICATION |
| :--- | :--- |
| PAPER NUMBER: | LEVEL 1-2-3 |
| DATE: |  |
| TIME: | 2 HOURS |


| Qn. | Suggested answer/s | Marks |
| :---: | :---: | :---: |
| 1a. | Research is important because it provides students with new ideas to explore. Students encounter problems during their projects, and these can be solved by conducting research. Research provides new insights and encourage students to learn more. | 3 |
| b. | i. False | 1 |
|  | ii. True | 1 |
|  | iii. True | 1 |
| c. | Descriptions related to: <br> - research and include more types of constructions; <br> - an original design. | 4 |
|  | Total | 10 |

\begin{tabular}{|c|c|c|}
\hline 2 a . \& \begin{tabular}{l}
Sketch 3 \\
Sketch 4
\end{tabular} \& 2 \\
\hline b. \& Chosen idea \& 4 \\
\hline c. \& \begin{tabular}{l}
Candidates can mention any or more of the following: \\
- title (e.g. mini toy puzzle for kids); \\
- colours / varnish; \\
- scale; \\
- materials. \\
Candidates can mention any or more of the following: \\
- producing multiple sketches to explore different ideas; \\
- choosing a final idea and discarding less popular ideas; \\
- merging some ideas together; \\
- safety considerations for the intended audience; \\
- evaluating the designs against the criteria; \\
- applying changes to the designs to produce a better overall outcome.
\end{tabular} \& 2 \\
\hline \& \begin{tabular}{l}
Neatness: \\
Candidates can mention any or more of the following: \\
- linear and simple; \\
- basic geometrical shapes; \\
- smooth surface. \\
Proportion: \\
Candidates can mention any or more of the following:
\end{tabular} \& 2

2 <br>
\hline
\end{tabular}

|  | - ergonomics; <br> - packaging. <br> Accept any relevant answer, provided that the candidate justifies the change. | 2 |
| :--- | :--- | :---: |
|  | Total | $\mathbf{1 8}$ |


| 3 a . | A |  |  | 1 |
| :---: | :---: | :---: | :---: | :---: |
| b. | B |  |  | 1 |
| c. | Yellow <br> Black <br> Triangle (Equilateral) |  |  | 1 1 1 |
| d. | Candidates can mention any or more of the following: <br> - colour; <br> - scale; <br> - position; <br> - font weight and style (i.e. bold, italic, etc.). |  |  | 2 |
| e. <br> f. |  | Type of film people prefer |  | 5 2 |
| g. |  | 3 | Scan the picture | 4 |
|  |  | 1 | Launch the scanning program |  |
|  |  | 4 | Save the image on your computer |  |
|  |  | 2 | Adjust scanning properties |  |
|  | Total |  |  | 18 |



| 5. |  |  |  | 5 |
| :---: | :---: | :---: | :---: | :---: |
|  | Label | Name of tool | Function | 1 mark for each complete correct row |
|  | A | New file | Create a new file |  |
|  | B | Save | Save work on document |  |
|  | C | Print | Prints / plots the CAD design on paper |  |
|  | D | Match properties | Applies the properties of an object onto another |  |
|  | E | Undo | Reverse the most recent actions |  |
|  | F | Pan | Moves the drawing view |  |
|  | G | Line | Draws a line |  |
|  | H | Polygon | Creates an equilateral Polygon |  |
|  | 1 | Circle | Creates circle using centre points and radius |  |
|  | J | Axis and Ellipse | Draws an Ellipse |  |
|  | Total |  |  | 10 |

\begin{tabular}{|c|c|c|}
\hline 6 a. \& A snow board. \& 1 \\
\hline b. \& Two colours. \& 2 \\
\hline c. \& \begin{tabular}{l}
Any one of: \\
\(B\), because the font is a freehand, Italic and fresh. \\
A, because one could be organising a heavy metal themed beach party. \\
C, because one wants to convey a poster title that has a high-impact and strong message.
\end{tabular} \& 3 \\
\hline d. \& \begin{tabular}{l}
Candidates should mention the following: \\
- Select the marquee tool \\
- Apply the selection \\
- Select Tools/Image>Crop \\
- To insert images you can either copy/paste a selection OR \\
- copy the layer of an image into a second image.
\end{tabular} \& 1

1 <br>
\hline e. \&  \& 6 <br>
\hline \& Total \& 14 <br>
\hline
\end{tabular}

| 7a. |  |  |
| :--- | :--- | :--- | :--- |

