## Communication

## Duration - $\mathbf{1}$ hour and $\mathbf{3 0}$ minutes

Fill in these boxes and read what is printed below.

Full name of centre
Town


Forename(s)
Surname
Number of seat


Date of birth

| Day |  | Month |  | Year |  | Scottish candidate number |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ | $\square$ | $1 /$ | $1 /$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |  |

Total marks - 60

Attempt ALL questions.
All dimensions are in mm.
All technical sketches and drawings use $3^{\text {rd }}$ angle projection.
You may use rulers, compasses or trammels for measuring.
Use blue or black ink.

Before leaving the examination room you must give this booklet to the invigilator.
If you do not, you may lose all the marks for this paper.

a) What type of alignment is used in the poster above? (1 mark)
$\qquad$
$\qquad$
b) Name the effect indicated by the letter A. (1 mark)
$\qquad$
$\qquad$
c) What effect does this type of layout technique cause? (1 mark)
$\qquad$
$\qquad$
d) Unity is used in the presentation above. Explain how it is achieved and the effect it gives. (2 marks)
$\qquad$
$\qquad$
$\qquad$
$\qquad$

e) What type of alignment is used in the layout above? (1 mark)
f) What type of effect is shown by the letter B? (1 mark)
2. A group of school pupils were asked about their social habits. They were invited to answer questions on 2 topics; how they communicated with their friends and when they felt more awake during the day.

The answers they gave are shown below.

## QUESTION 1

How do you communicate with your friends?
Texting - 1300 pupils
Social media - 1000 pupils

Talking on the phone - 300 pupils.
Talking in person - 1500 pupils
While playing video games - 500 pupils

## QUESTION 2

At what time during the day do you feel more awake?
$10 \%$ - $9 \mathrm{am}-11 \mathrm{am}$
15\%-11am-1pm
$25 \%-1 p m-4 p m$
10\% - 4pm - 7pm
40\% - 7pm - 11pm

Based on the answers given to QUESTION 1, How do you communicate with your friends?
a) State the best type of graph to use when representing the information in the answers to QUESTION 1. (1 mark)
b) State one reason for using this type of graph. (1 mark)

Based on the answers given to QUESTION 2, At what time during the day do you feel more awake?
c) State the best type of graph to use when representing the information in the answers to QUESTION 2. (1 mark)
d) State one reason for using this type of graph. (1 mark)
3.

A

B

C

D

E

F
a) Above is a selection of building symbols.

According to British Standards, name each of the symbols shown. (6 marks)
A $\qquad$ B $\qquad$ C $\qquad$
D $\qquad$ E $\qquad$ F $\qquad$
b) What is a CAD library? (1 mark)
$\qquad$
$\qquad$
c) What is the difference between computer animation and computer simulation? (2 marks)
$\qquad$
$\qquad$
d) Why do we use symbols in Graphic Communication to convey information? (1 mark)
$\qquad$
$\qquad$

## Rave Safe meate

Throw your shapes
Sub heading


Flashbars


This example shows the design of a flier for a nightclub event. The original images and ideas are shown in the top example.
a) Name the DTP command used for the following areas. Do not name the same command more than once.
i) Detail A - The effect added to the heading. (1 mark)
ii) Detail B - The changes to the images. (1 mark)
$\qquad$
iii) Detail C - The format added to the sub heading. (1 mark)
b) Give reasons for the following design features of the flier:
i) Why was the font for the heading changed? (1 mark)
ii) Why was Detail A added to the heading? (1 mark)
$\qquad$
$\qquad$
iii) Why was Detail C added to the sub heading? (1 mark)
c) What is the reason the colours chosen for the flash bars? (1 mark)
$\qquad$
$\qquad$
d) What is the purpose of using flash bars in the flier? (1 mark)
$\qquad$
$\qquad$
5.

A cup in a cup holder that can be used at concerts is shown here.


Step 2

The steps for creating a 3D model of the cup holder are shown here.
Step 3
Step 4
a) State the 3D command used to create the hole at stage 2. (1 mark)
b) Describe how you would create the cup holder from step 3 to step 4. You can use sketches to support your answer. (3 marks)
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$\qquad$

The cup was produced by using the command shown below.


Stage 1 of the command.

Stage 2 of the command.
c) State the name of this command. (1 mark)
d) The orthographic views of the cup holder are shown below. (6 marks)

i) State the size of dimension A
ii) State the size of dimension $B$
$\qquad$
iii) There are 4 mistakes with the dimensions on the Plan of the cup holder. Circle each of these mistakes.
e) Sketch the $3^{\text {rd }}$ angle symbol in the space below. (1 mark)
f) The company that produced the cup holder want to introduce a handle to help people carry 3 drinks at a time.

The preliminary sketches for one of the attachments that fit on top of this handle are shown below.


Describe how you would use 3D modelling software to create this handle. You may use sketches to help illustrate your answer. (6 marks)
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6.
a) State the name of the views shown here. (4 marks)

View A

View C


View C

b) State the size of the angles X in View B. (1 mark)
c) What is meant by a scale of 1:2? (1 mark)
7.

A pictorial view and a parts list of a cutting gauge is shown below.

| Item <br> Number | Title | Material | Quantity |
| :---: | :--- | :--- | :---: |
| 1 | Stem | Wood | 1 |
| 2 | Fence | Wood | 1 |
| 3 | Shoe | Wood | 1 |
| 4 | Threaded Inserts | Steel | 1 |
| 5 | Wing Screw M6 $\times 25 \mathrm{~mm}$ | Steel | 1 |
| 6 | Knife Blade | Steel | 1 |
| 7 | Wedge | Wood | 1 |


(a) State the name of this type of view. (1 mark)
(b) State the name of part 2. (1 mark)
(c) State the material the knife blade if made from. (1 mark)
(d) State the part number of the wing screw. (1 mark)
8.
(a) Below are orthographic views of a cut hexagon with the elevation missing. State the correct view from the choices below. (1 mark)

View


Plan


EndElevation


C
(b) Below are orthographic views of a cut pyramid with the elevation missing. State the correct view from the choices below. (1 mark)

## View

$\qquad$


Plan

A



B


End Elevation


C
(c) Below are orthographic views of a cut cylinder with the elevation missing. State the correct view from the choices below. (1 mark)

View $\qquad$


