## Holy Cross High <br> Graphic Communication


$\square$

## Total Marks 50

Attempt all questions.
All dimensions in mm.
All technical sketches and drawings use third angle projection.
You may use rulers, compasses or trammels for measuring.
Use Black or Blue ink.
Before leaving the examination room you must hand this booklet to the invigilator. If you do not you may loose all marks for this paper.

| Total marks scored in this exam |
| :--- |
|  |
|  |
|  |

1. The top of a board marker, the sketch from which it was created and the steps used in its creation are shown below. It was created using 3D modelling software.



Step 1


Step 2


Step 3


Step 4

The first step in creating the model was to draw a circle of $\emptyset 15$ in sketch mode.
Answer the following questions about the next steps using the sizes from the above sketch.
(a) State the correct modelling technique and size used to go from step 1 to step 2.

## Technique

$\qquad$
Size used
(b) State the correct modelling technique used to go from step 2 to step 3.
(c) In the completed model describe how you would add the raised feature shown at $X$ and in step 4 above. You may use sketches to aid your description.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
(d) The model of the body of the pen was created from the profile shown below.


State the modelling technique used to create the body of the pen $\qquad$
(e) After the body was created, the top and other parts were created. These were then brought together as the model shown below.

State the name given to this type of model. $\qquad$ 1

(f) It was decided that there would need to be a sales presentation created in order to market the pen.

The model below was created to be used in this presentation.
State the name given to this type of model.

(g) State the name given to the type of drawings shown below. $\qquad$

(h) When producing CAD work for your course it should have correct conventions and be in $3^{\text {rd }}$ Angle orthographic projection.

Drawing A has many mistakes
State four errors contained in this attempt at producing such a drawing.
$\qquad$
(i)
$\qquad$


Drawing A
(ii) $\qquad$
(iii) $\qquad$
(iv)
2. Study the drawings shown below and answer the following questions.
(a) Identify the symbols $\mathbf{A}, \mathbf{B}, \mathbf{C}$ and $\mathbf{D}$ on Drawing $\mathbf{X}$
A.

B
C.
$\qquad$

(b) Identify the symbols $\mathbf{E}, \mathbf{F}, \mathbf{G}$ and $\mathbf{H}$ on plan $\mathbf{Y}$
E.
F.

G
H.

(c) Symbols like the ones above are drawn using BSi conventions.
(i) State one advantage of using BSi conventions when producing drawings.

Advantage $\qquad$
$\qquad$
These symbols can also be stored as part of a CAD library.
(ii) State one advantage of using a CAD library.

Advantage $\qquad$
$\qquad$
(iii) Plan Y on the previous page is known as a Floor Plan.

State the names of two other types of plan used in the building industry
Plan $\qquad$
Plan $\qquad$
(iv) State a scale that could be used on a plan like this

Scale $\qquad$
3.

a) State which two of the pictorials 1 to 6 above represent the bracket shown in Drawing $\mathbf{X}$.

Answer 1 $\qquad$
Answer 2
b) State the name given to the types of pictorial shown above.

Answer
c) State the names of two other types of pictorial that could have been used to draw the bracket
$\qquad$
d) Eight sectional views 7 to 14 are given below


State which two are correct sections of the bracket.
Answer 1 $\qquad$
Answer 2
4. The two different documents shown below were produced using DTP software

(a) State the DTP term for each of the features A-F shown on documents $1 \& 2$
$\qquad$
A
B $\qquad$

C $\qquad$ D

E $\qquad$ F
(b) When designing DTP documents you should think about the principles for an effective display.
(i) State one way in which contrast has been used in Document1
(ii) State how Dominance has been used in Document1


Red was chosen as one of the colours, state two colours that could be used with red to create this scheme.

Colour $\qquad$ Colour $\qquad$
(b) A new public library should create a sense of peace and harmony.

Green was chosen as one of the colours, state two colours that could be used with green to create a scheme

Colour $\qquad$ Colour $\qquad$
(c) State the effect of decorating a room in an advancing colour.

Effect $\qquad$
$\qquad$
(d) State the effect of decorating a room in a receding colour.

Effect $\qquad$
(e) State one advancing and one receding colour that could have been used for the room.

Advancing $\qquad$ Receding

