

# N5

## Graphic Communication

Fore name

Surname

### Total Marks 50

Attempt all questions.

All dimensions in mm.

All technical sketches and drawings use third angle projection.

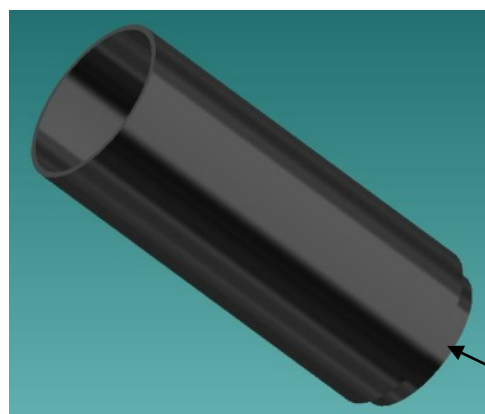
You may use rulers, compasses or trammels for measuring.

Use **Black** or **Blue** ink.

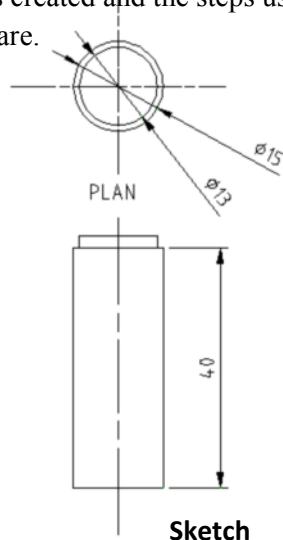
Before leaving the examination room you must hand this booklet to the invigilator.  
If you do not you may lose all marks for this paper.

Total marks scored in this exam

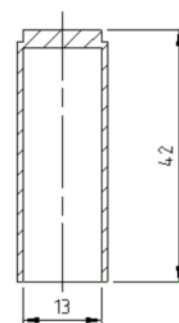
1. The top of a board marker, the sketch from which it was created and the steps used in its creation are shown below. It was created using 3D modelling software.



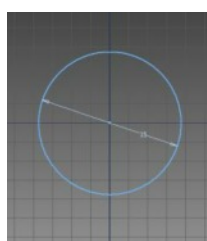
X



Sketch



X



Step 1



Step 2



Step 3



Step 4

The first step in creating the model was to draw a circle of Ø 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 Extrude - Addition

Size used 40 mm

2

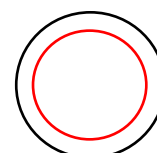
- (b) State the correct modelling technique used to go from **step 2** to **step 3**. Shell

1

- (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.*

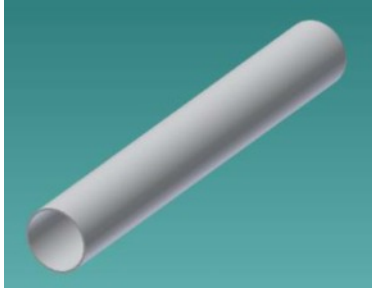
3

Create a new sketch on the top surface. Using the 'circle' Tool, draw a circle Ø13 in the centre. Finish the sketch and extrude the circle by 2 mm, adding material to the surface.

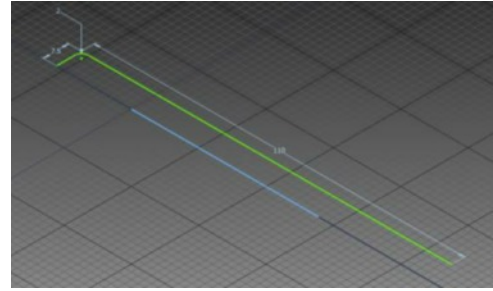


(d) The model of the body of the pen was created from the profile shown below.

model



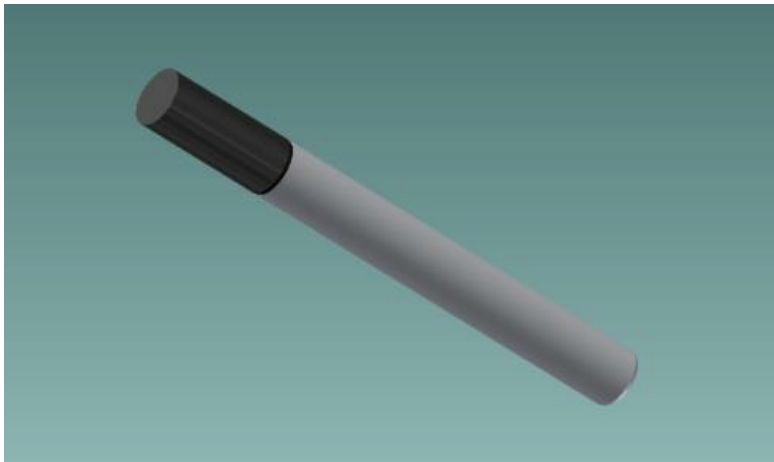
profile



State the modelling technique used to create the body of the pen. Revolve - 360° Addition 1

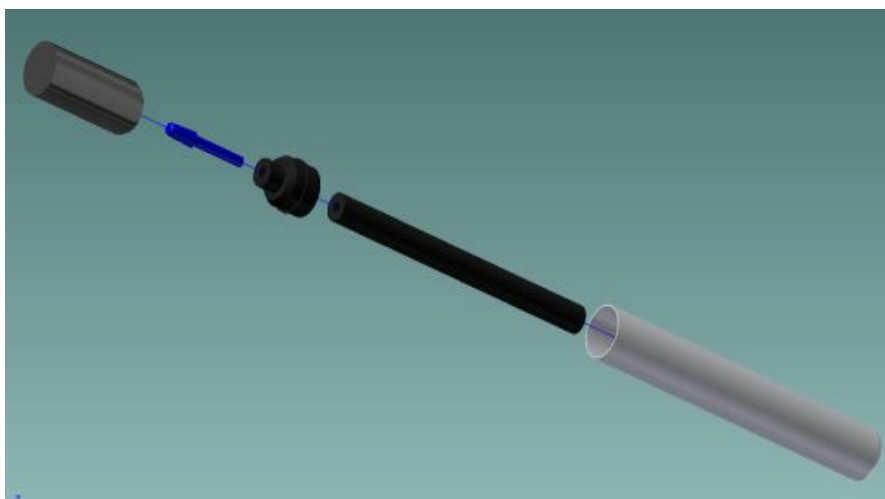
(e) After the body was created, the top and other parts were created. These were then brought together as the model shown below.

State the name given to this type of model. Assembled / Solid 1

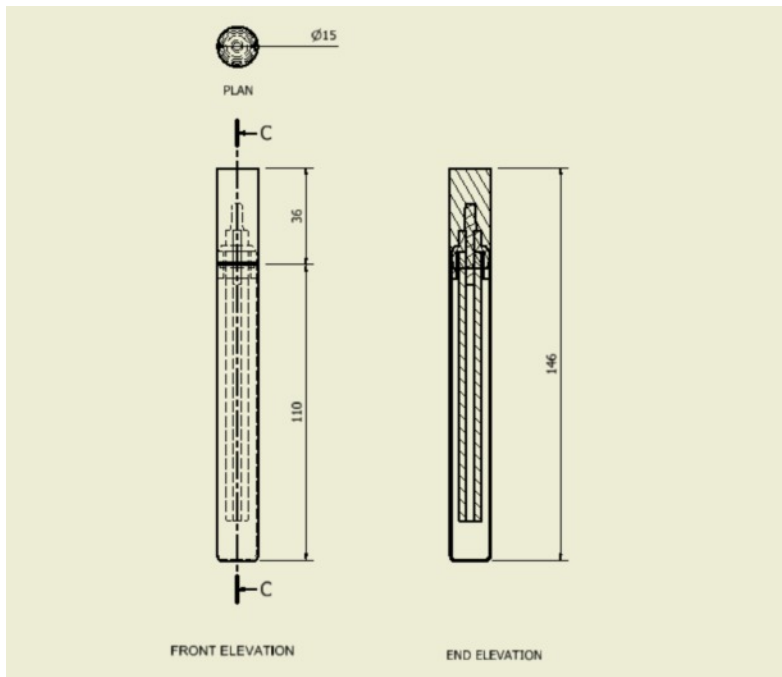


(f) It was decided that there would need to be a sales presentation created in order to market the pen. The model below was created to be used in this presentation.

State the name given to this type of model. Exploded Pictorial 1



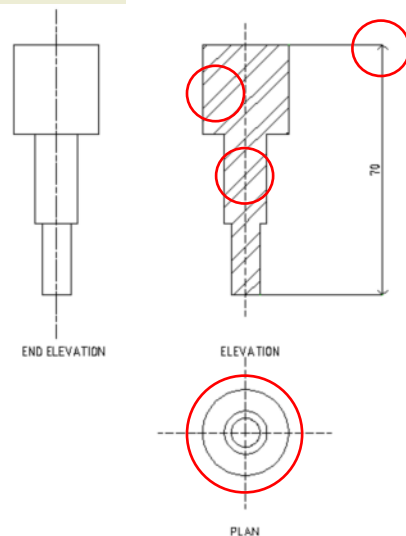
(g) State the name given to the type of drawings shown below. Orthographic 1



(h) When producing CAD work for your course it should have correct conventions and be in 3<sup>rd</sup> Angle orthographic projection.

**Drawing A** has many mistakes

State four errors contained in this attempt at producing such a drawing.



**Drawing A**

- (i) Arrow heads are not full
- (ii) 45° hatch lines are not equally spaced
- (iii) Centre lines is wrong line type
- (iv) Plan should be above the Elevation

4

**Total Marks 14**

2. Study the drawings shown below and answer the following questions.

**MARKS**

Do not  
write  
in this  
margin

(a) Identify the symbols **A**, **B**, **C** and **D** on **Drawing X**

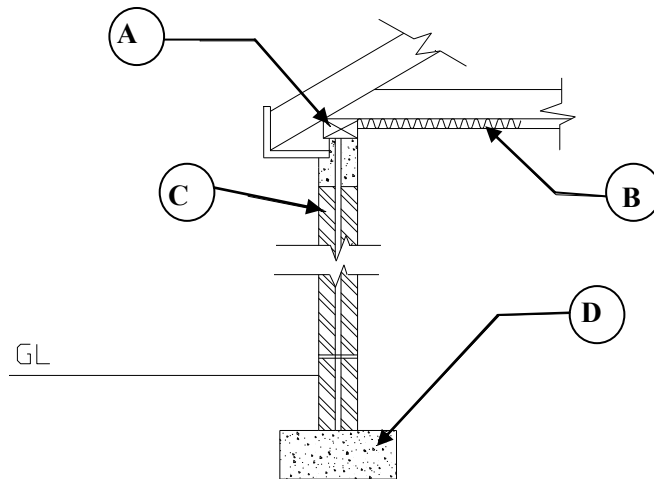
**A**..... **Sawn Wood** .....

**B**..... **Insulation** .....

**C**..... **Brickwork** .....

**D**..... **Concrete** .....

4



**Drawing X**

(b) Identify the symbols **E**, **F**, **G** and **H** on **plan Y**

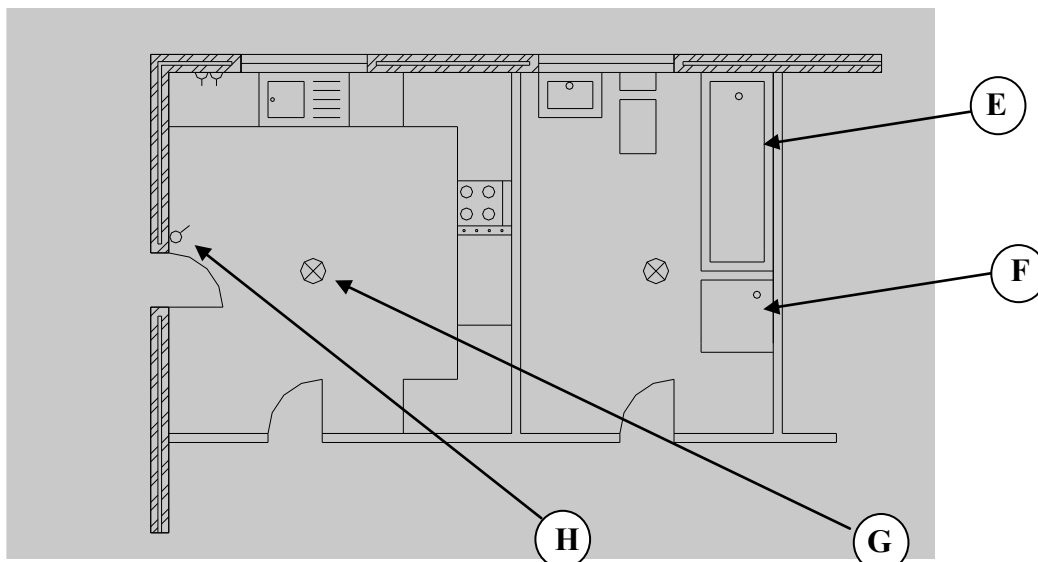
**E**..... **Bath** .....

**F**..... **Shower Tray** .....

**G**..... **Lamp** .....

**H**..... **Switch** .....

4



**Plan Y**

(c) Symbols like the ones above are drawn using BSi conventions.

**MARKS**

Do not  
write  
in this  
margin

(i) State one advantage of using BSi conventions when producing drawings.

Advantage Everyone will be able to interpret the drawings  
Crosses language barrier

1

These symbols can also be stored as part of a CAD library.

(ii) State one advantage of using a CAD library.

Advantage Quicker to create the drawing  
All parts will be to British Standards

1

(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 Site Plan

Plan Location Plan

2

(iv) State a scale that could be used on a plan like this

Scale 1:50

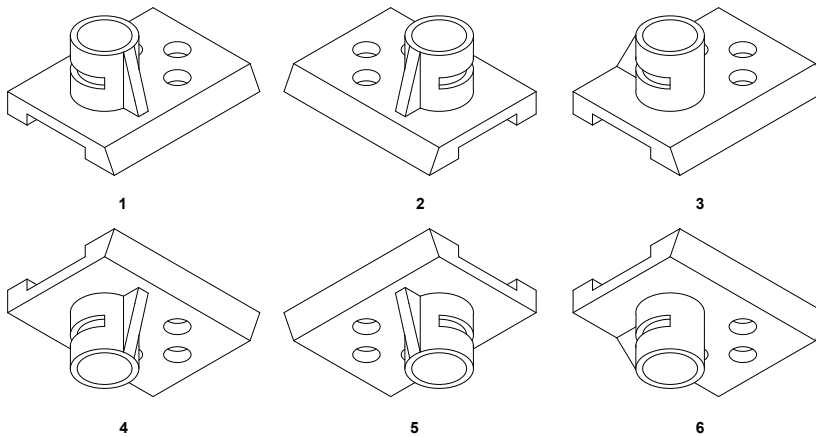
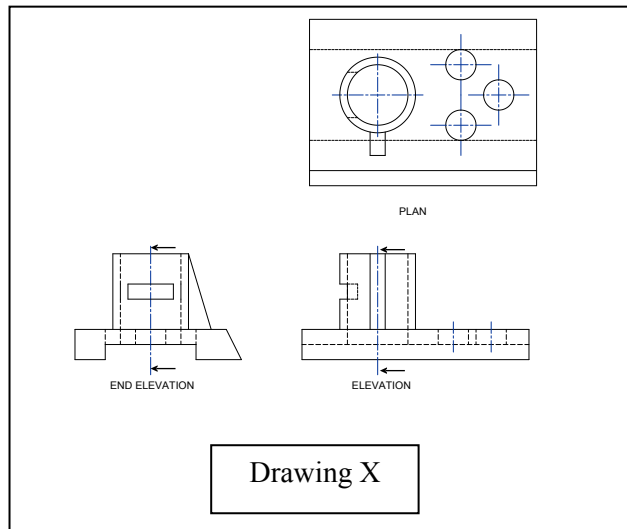
1

**Total Marks 13**

3.

**MARKS**

Do not  
write  
in this  
margin



a) State which two of the pictorials 1 to 6 above represent the bracket shown in **Drawing X**.

Answer 1 1

Answer 2 5

2

b) State the name given to the types of pictorial shown above.

Answer Isometric

1

c) State the names of two other types of pictorial that could have been used to draw the bracket

1 Oblique

2 Planometric

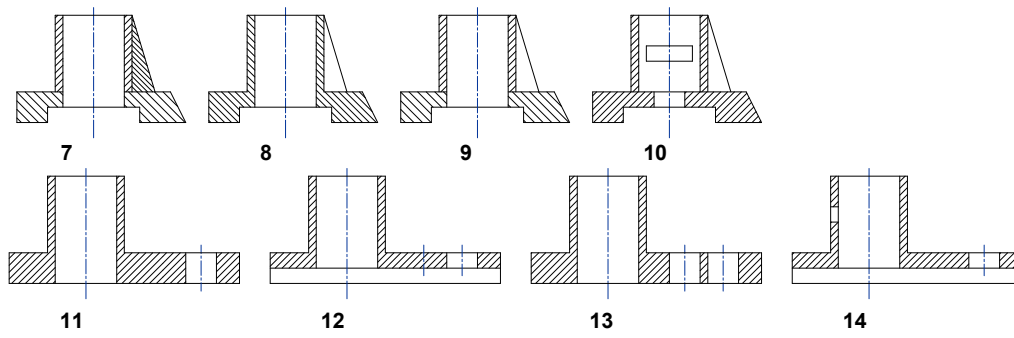
2

(1 or 2 Point Perspective)

d) Eight sectional views 7 to 14 are given below

**MARKS**

Do not  
write  
in this  
margin



State which two are correct sections of the bracket.

Answer 1 1

Answer 2 14

2

**Total Marks 7**



**A**



©



**E**

**F**

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

A Bleed B Reverse

C Text Box D Gutter

E Text Wrap F Footer 6

(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 **Document 1**

The black writing contrasts with the block colour of orange  
The black background with white writing creating reverse on headline 1

(ii) State how **Dominance** has been used in **Document 1**

The main image & body of text are the more dominant as they  
take up 2/3's of the page 1

**Total Marks 8**

5 (a) A new fairground attraction should be bright and highly visible with lots of contrast.

**MARKS**

Do not  
write  
in this  
margin



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

Colour Blue Colour Yellow 2

(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 Blue Colour Purple 2

(c) State the effect of decorating a room in an advancing colour.

Effect It would make the room feel warm and bright but potentially smaller 1

(d) State the effect of decorating a room in a receding colour.

Effect It would make the room feel cool but potentially look bigger 1

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

Advancing Yellow / Orange / Red Receding Blue / Purple / Green 2

**Total Marks 8**