STAPLE HERE

FOR OFFICIAL USE

X033/13/01

NATIONAL QUALIFICATIONS 2013

TUESDAY, 21 MAY 9.00 AM – 12.00 NOON

GRAPHIC COMMUNICATION ADVANCED HIGHER

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day Month Year

Scottish candidate number

Number of seat

80 marks are allocated to this paper.

1 Answer **all** questions.

2 Read each question carefully before you answer.

3 Written answers may be in **ink** or **pencil**.

4 Drawings and sketches **must be in pencil**.

5 Coloured pencils may be used when sketching.

6 Dimensions are given in millimetres or as stated.

7 Orthographic drawings are in third angle projection.

8 The leaflet for Questions 1 and 2 has been supplied separately. Please ensure that you have this leaflet.

9 **At the end of the examination**

check that your name is on every sheet;

put the sheets in correct numerical order;

place this sheet on top of the others;

join all sheets together by **stapling** at the top left-hand corner;

before leaving the examination room, you must give these sheets to the Invigilator (if you do not you may lose all the marks for this paper).

Marks Grid

Question	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
Total Marks	

1

Using the **"Autodesk Create"** leaflet.

Identify **three Design Principles** that are used in the leaflet, and describe how they are used.

Design Principle 1 .....

Description:

2

Design Principle 2 .....

Description:

2

Design Principle 3 .....

Description:

2

Total (6) ☐

2

Using the **"Autodesk Create"** leaflet.

Identify **three Design Elements** that are used in the leaflet, and describe how they are used.

Design Element 1 .....

Description:

2

Design Element 2 .....

Description:

2

Design Element 3 .....

Description:

2

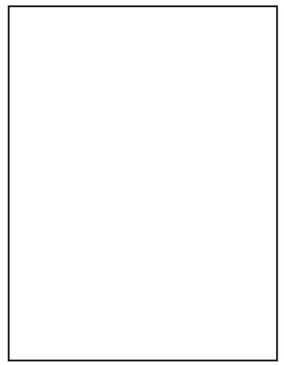
Total (6) ☐

Candidate's Name _____

3 There are three main types of balance used in DTP publications.

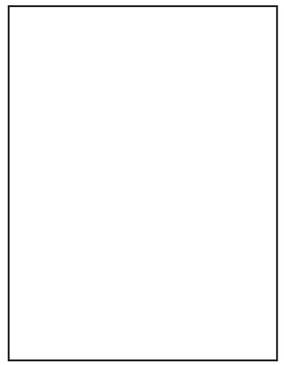
In the space below, state and sketch **two** DTP balances.

(*a*) Balance: .....



1

(*b*) Balance: .....



1

Total (2)

4 In Computer Aided 3D Modelling, lighting is used to enhance a model.

Describe, with the aid of sketches if necessary, the effect the following lighting types will have.

(*a*) Spot

1

(*b*) Distant

1

(*c*) Ambient

1

Total (3)

Section A

5

An advertising leaflet for the game of handball, ready to be sent to the printers, is shown below.

Correctly identify the features arrowed in the leaflet.

(i)

(ii)

(iii)

(iv)

4

Edge of paper

(i)

HANDBALL is an extremely fast, 7 a-side game played indoors by two teams. It has similarities with both basketball and football, is fast moving and requires strength, speed and agility.

A handball team is comprised of seven players, who work together to move the ball up the court and attempt to score a goal.

The fast pace of the game results in many shots being taken, and teams can often score over 20 goals each.

Like basketball, players rely on feints, body swerves, and huge leaps in the air to pass, control the ball and shoot.

Unlike basketball, physical contact is allowed and legal body-checks can sometimes see players crashing to the ground!

(ii)

(iii)

(iv)

Total (4)

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Section A

6

The choice of print methods depends on many factors.

(*a*) Describe **three** such factors.

3

Listed below are two different printing requirements and a suggested printing process. Explain the advantages and disadvantages of each process.

(*b*) Full colour magazine printed using offset lithography.

Advantages:

Disadvantages:

2

(*c*) Company logo onto polythene using flexography.

Advantages:

Disadvantages:

2

Total (7)

Candidate's Name _____

7 Explain, with the aid of sketches, the following 3D CAD modelling techniques and terms.

(*a*) solid created through extrusion along a path

1

(*b*) surfaces or solids created between two or more entities (eg edge surf, loft)

1

(*c*) solids created through revolution

1

(*d*) union

1

(*e*) intersection

1

Total (5)

Candidate's Name _____

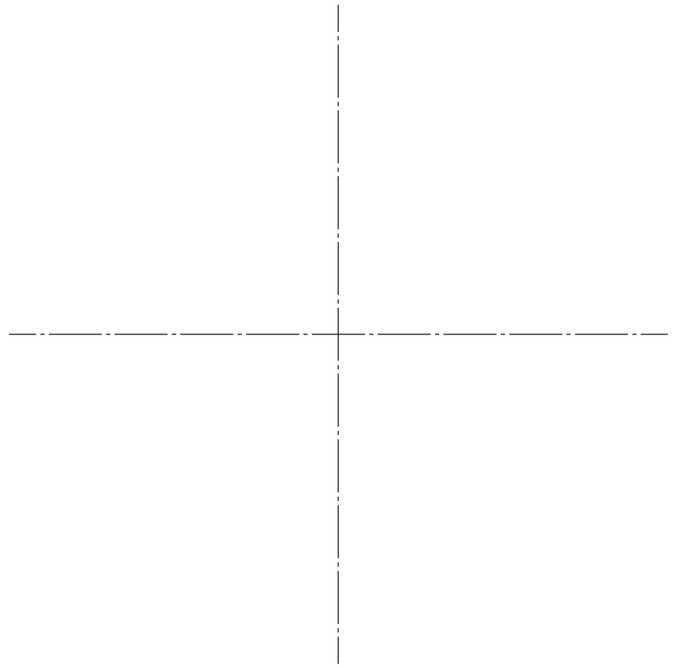
The elevation of a cut solid right cone is given.

Draw, in the positions indicated:

(*a*) the end elevation;

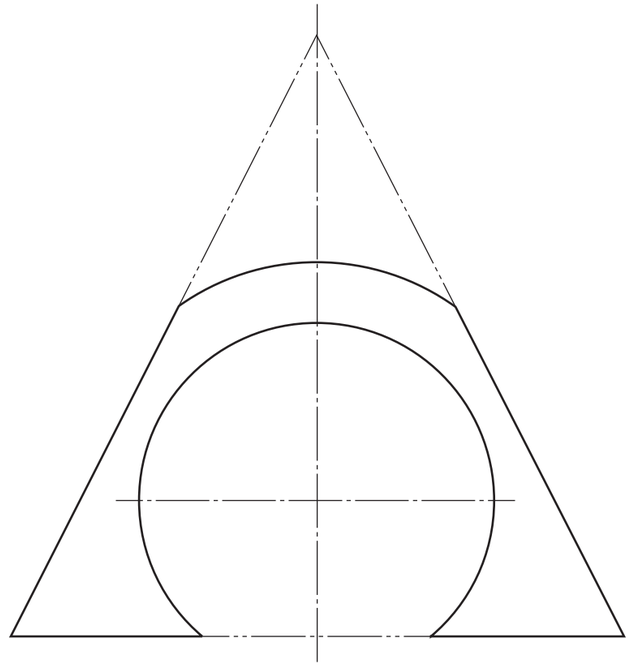
(*b*) the plan.

Show all hidden detail. **(9 marks)**



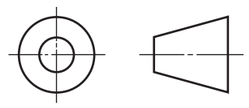
PLAN

END ELEVATION



ELEVATION

a	
b	
c	
d	
e	
f	
g	
h	
i	
j	
k	
l	
m	
n	



Candidate's Name _____

The incomplete elevation and end elevation of an intersecting semi-cylinder and triangular prism are given below.

Draw, the complete:

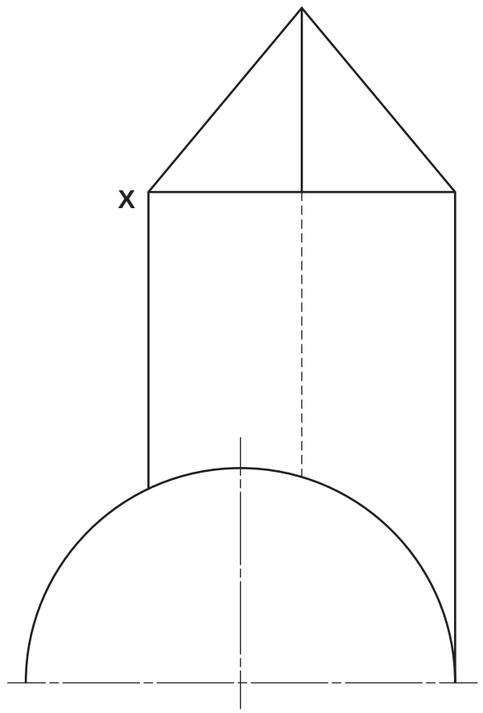
(*a*) elevation;

(*b*) plan;

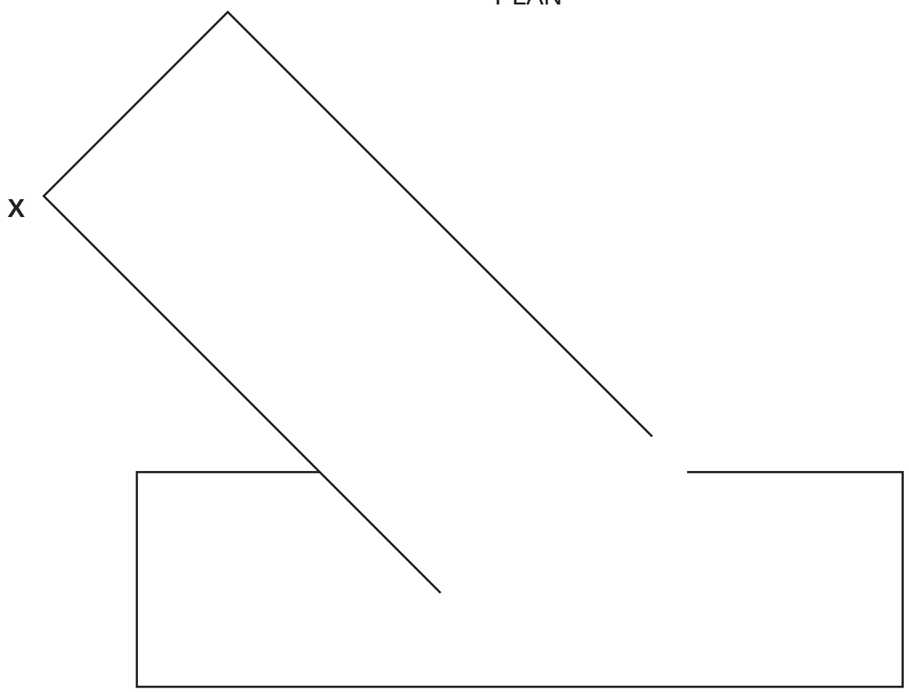
(*c*) surface development of the triangular prism.

Show all hidden detail. **(12 marks)**

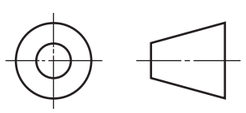
PLAN



END ELEVATION



ELEVATION



DEVELOPMENT

a	
b	
c	
d	
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i	
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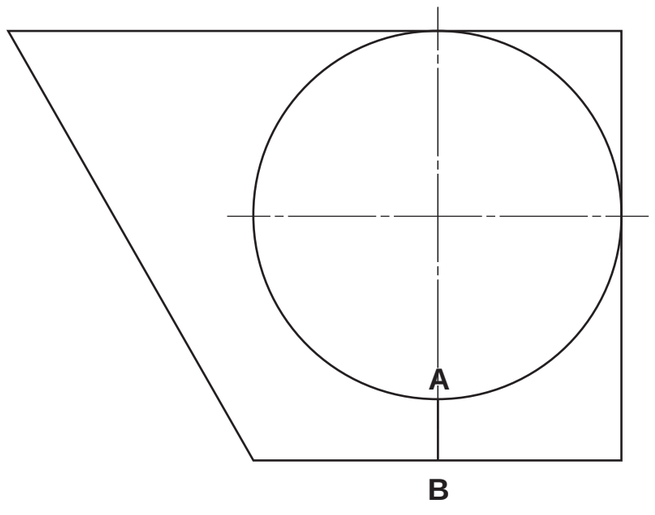
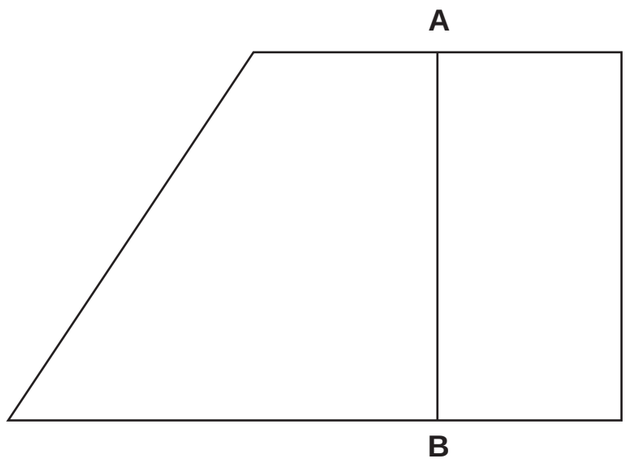
10 The elevation and plan of a transition piece are shown below.

Draw, in the position indicated, the surface development of the transition piece starting at seam **AB.**

(14 marks)



PLAN



ELEVATION

a	
b	
c	
d	
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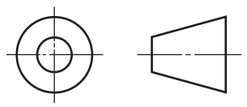
l	
m	
n	

SURFACE DEVELOPMENT



Candidate's Name _____

The elevation, end elevation and plan of a Patio are given below.

The spectator point (SP), plane of projection (PP), ground line (GL) and eye level (EL) are also given.

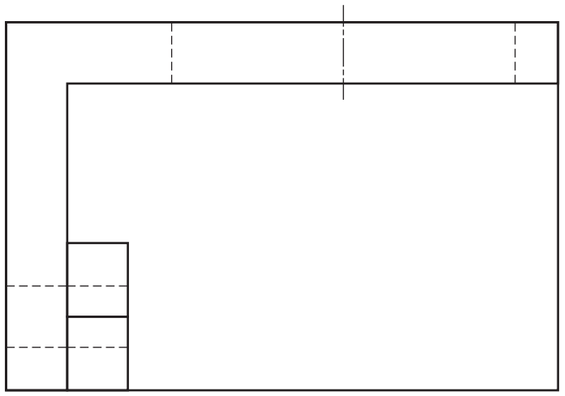
Draw, from the given views a measured perspective view of the Patio.

Do not show hidden detail. **(12 marks)**

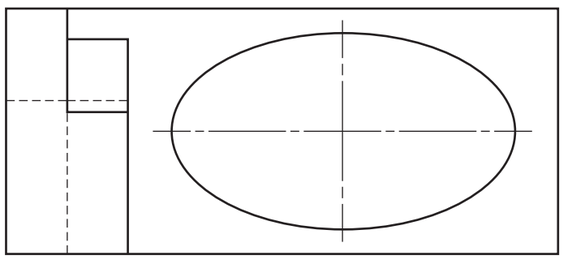
EL

GL

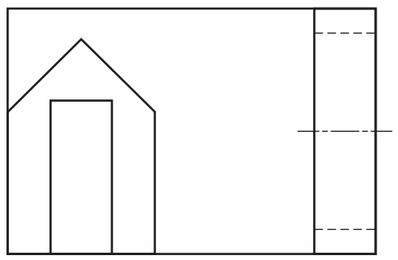
PP



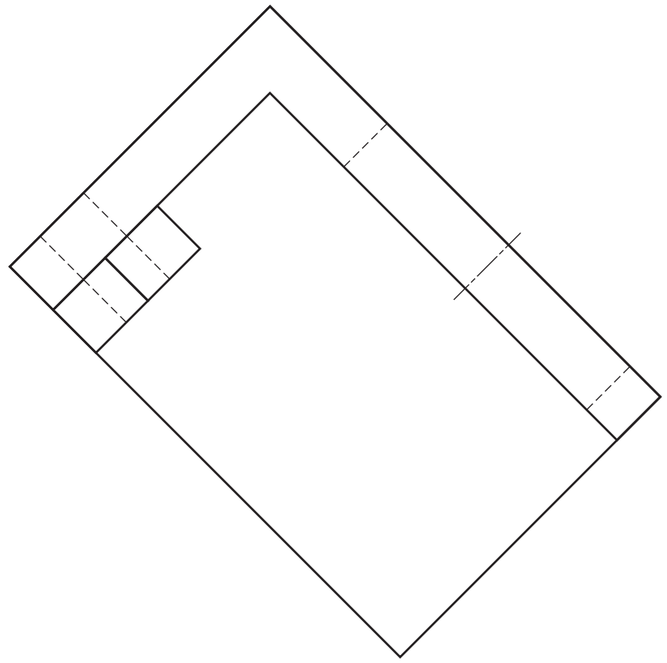
PLAN



ELEVATION



END ELEVATION



SP

a	
b	
c	
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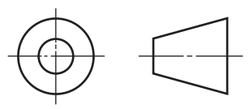
m	
n	



[END OF QUESTION PAPER]

Candidate's Name _____

ACKNOWLEDGEMENTS

Question 5—British Handball logo is reproduced by kind permission of the British Handball Association.

Leaflet—Autodesk “Create” Leaflet, October 2009, Issue 08. Permission is being sought from Autodesk Ltd.

Leaflet—Image of Nike Zoom training shoes are reproduced by NIKE, Inc, under their “fair use” policy.

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TUESDAY, 21 MAY
9.00 AM – 12.00 NOON

GRAPHIC COMMUNICATION
ADVANCED HIGHER
Leaflet for use with Questions 1 and 2

PB X033/13/11 6/4960

Leaflet for use with Questions 1 and 2

SIDE ONE ←

SIDE TWO →

Candidate's Name _____