

STAPLE HERE

FOR OFFICIAL USE

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X033/701

NATIONAL
QUALIFICATIONS
2008

TUESDAY, 27 MAY
9.00 AM – 12.00 NOON

GRAPHIC
COMMUNICATION
ADVANCED HIGHER

Marks Grid

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

Fill in these boxes and read what is printed below.

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day Month Year

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Scottish candidate number

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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 **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).



[BLANK PAGE]

Marks

1. The graphic shown below is a page out of a magazine.
Rule off and annotate the given page to show the terms listed below.
- Grid structure
 - Gutters
 - Left margin
 - Body text
 - Bleed
 - Sub Headline

(6)

Health Problems

IRRITABLE BOWEL SYNDROME
Irritable Bowel Syndrome (IBS) is the most common bowel disorder in the western world, but it is largely unspoken about, as sufferers usually feel too embarrassed. Often help is not sought even though symptoms can be painful and can evolve into life threatening conditions. IBS is twice as common in women than in men, usually occurring between the ages of 20 and 40. Its symptoms are constipation or diarrhoea or a change between both of these. Stomach ache, bloating and wind may also be present with the condition.
IBS may be triggered by stress, hyperventilation, hormone imbalances and different types of

OSTEOPOROSIS
Osteoporosis is a disease than thins the bones, making them weak and brittle. Small knocks and bumps easily cause fractures or breaks, especially to vulnerable areas like the wrists and hips. 1 in 3 women and 1 in 12 men suffer from the condition. However there are no obvious warning symptoms and usually a break or fracture is the first sign.
Some factors increase your risk of osteoporosis: being underweight, family history (your genes), post-menopause, eating disorders, insufficient calcium and Vitamin D intakes, low hormone levels (oestrogen and testosterone), smoking, alcohol, and the use of certain medications (corticosteroids and anticonvulsants).

CAN I HELP MYSELF?
Reduce the risks of osteoporosis by enjoying a healthy diet rich in calcium and Vitamin D from an early age, because by 30-35 years your bones have reached their maximum density (with peak calcium content).
Maximum bone amounts can be achieved by:
1. Increasing weight bearing sports such as walking, running, gym training and even skipping and dancing.
2. Avoiding smoking and excessive alcohol.

3. Ensuring you have a good nutritionally balanced diet that contains plenty of calcium and Vitamin D.
For pre-menopausal women Hormone Replacement Therapy (HRT) can help prevent bone loss. During the menopause the level of the hormone oestrogen falls, resulting in bone and calcium loss, however HRT can limit the effects.
For more information contact your doctor or National Osteoporosis Society
PO BOX 10
Radstock
Bath BA3 3YB
Tel: 01761 471771

food. Unfortunately, because there are many causes, there is no single effective treatment. For some, the answer is a high fibre diet, for others a low fibre diet or an exclusion diet to avoid offending foods. In some cases drugs may be prescribed.
Research has shown that over half of IBS sufferers have a food intolerance. The 5 most common foods that sufferers are intolerant to are: wheat, corn, milk, cheese and oats. However, before any ingredients are avoided, your diet should be assessed by a dietitian or your doctor.
For further information contact your doctor or the IBS Network 0114 2611531



ARTHRITIS
Arthritis causes inflammation and swelling in the joints. The two most common types are:
Osteoarthritis (most common) mainly affects the weight bearing joints such as the hips, knees and spine. The symptoms range from aches and stiffness to what can eventually lead to a crippling disease. It is caused by the breaking down of the cartilage. Once the cartilage is worn the bones rub together causing inflammation.
Rheumatoid arthritis is a disorder in which the body progressively breaks down the joints, however remissions can occur.

CAN I HELP MYSELF? OSTEOARTHRITIS
There are no special diets for osteoarthritis, but it is easy to become overweight. Every step taken increases the load on these joints by 3-5 times the body weight, therefore weight control is vital to minimise stress, reduce pain and optimise mobility.

RHEUMATOID ARTHRITIS
It is not agreed whether your diet affects the treatment of rheumatoid arthritis, however studies clearly show people with this disease are at risk of poor nutrition. This may be a result of a decreased appetite due to constant pain and immobility, or because of problems with shopping, preparing and cooking of foods.

It has been reported that sufferers of rheumatoid arthritis often have lower intakes of folic acid, Vitamin B6 (pyridoxine), zinc and magnesium. Anaemia is also a common problem as a result of low intakes of iron. For more information ask in-store for a Vitamins and Minerals fact sheet.
The omega 3 fatty acid, eicosapentaenoic acid (EPA) has been shown in a study to relieve morning stiffness and cause fewer tender joints. Similar results were obtained with evening primrose oil, a rich source of gamma-linolenic acid (GLA).
There are many diet treatments, self-help remedies and even claimed 'cures' for rheumatoid arthritis. However most are unproven, and may not benefit your health long term. Before beginning any diet consult your doctor, who may refer you to a dietitian for advice.
For further information contact Arthritis Care
18 Stephenson Way
London NW1 2HD
Helpline 0808 800 4050



Page edge

14
15

2. (a) Show clearly and label the following typographical features on the sample text given below. *Marks*

Typographical features:

- X-height
- Baseline
- Counter
- Descender
- Meanline
- Caps line

Sample Text:

Type Specification

6

(b) Explain, with the aid of annotated sketches, the differences between a serif and a sans serif typeface.

3. "Balance" is a Design Principle. Two types of "Balance" are:

- Symmetrical
- Asymmetrical.

For each type of "Balance", sketch or describe the typical layout of a DTP page.

(i) Symmetrical

2

(ii) Asymmetrical

2
(8)

2
(4)

4. When producing an effective layout, Design Elements and Design Principles should be considered.

Marks

Explain, with the aid of sketches, how the following Design Elements and Design Principles make an impact in a publication.

Contrast

Shape

White Space

2

2

2

(6)

5. The following terms are associated with Computer-Aided 3D Modelling. Explain, with the aid of sketches, each of the following Computer-Aided 3D Modelling terms.

Union

Subtraction

Intersection

2

2

2

(6)

Marks

6. The following terms are associated with Computer-Aided 3D Surface Modelling.

- Ruled Surface
- Revolved Surface
- Edge Defined Surface
- Thickness

With the aid of sketches, describe **any two** of the above terms.

Term 1

Use this space for any additional information for Questions 1-6.

2

Term 2

2
(4)

The elevation and plan of a clock are shown 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 2 point perspective view of the clock.

Do not include the clock hands.

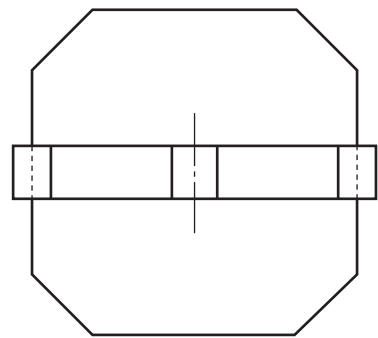
Do not show hidden detail.

(18 marks)

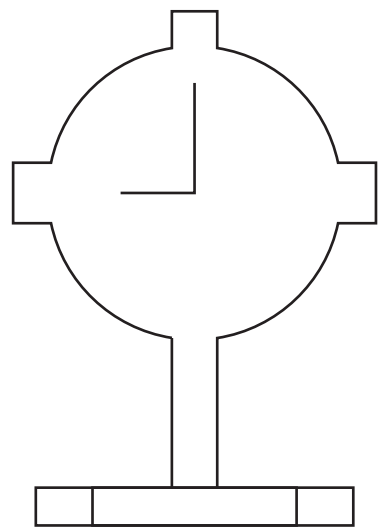
EL

GL

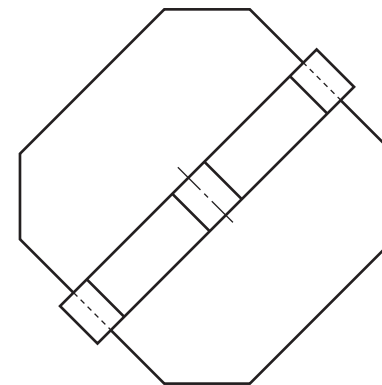
PP



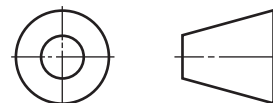
PLAN



ELEVATION



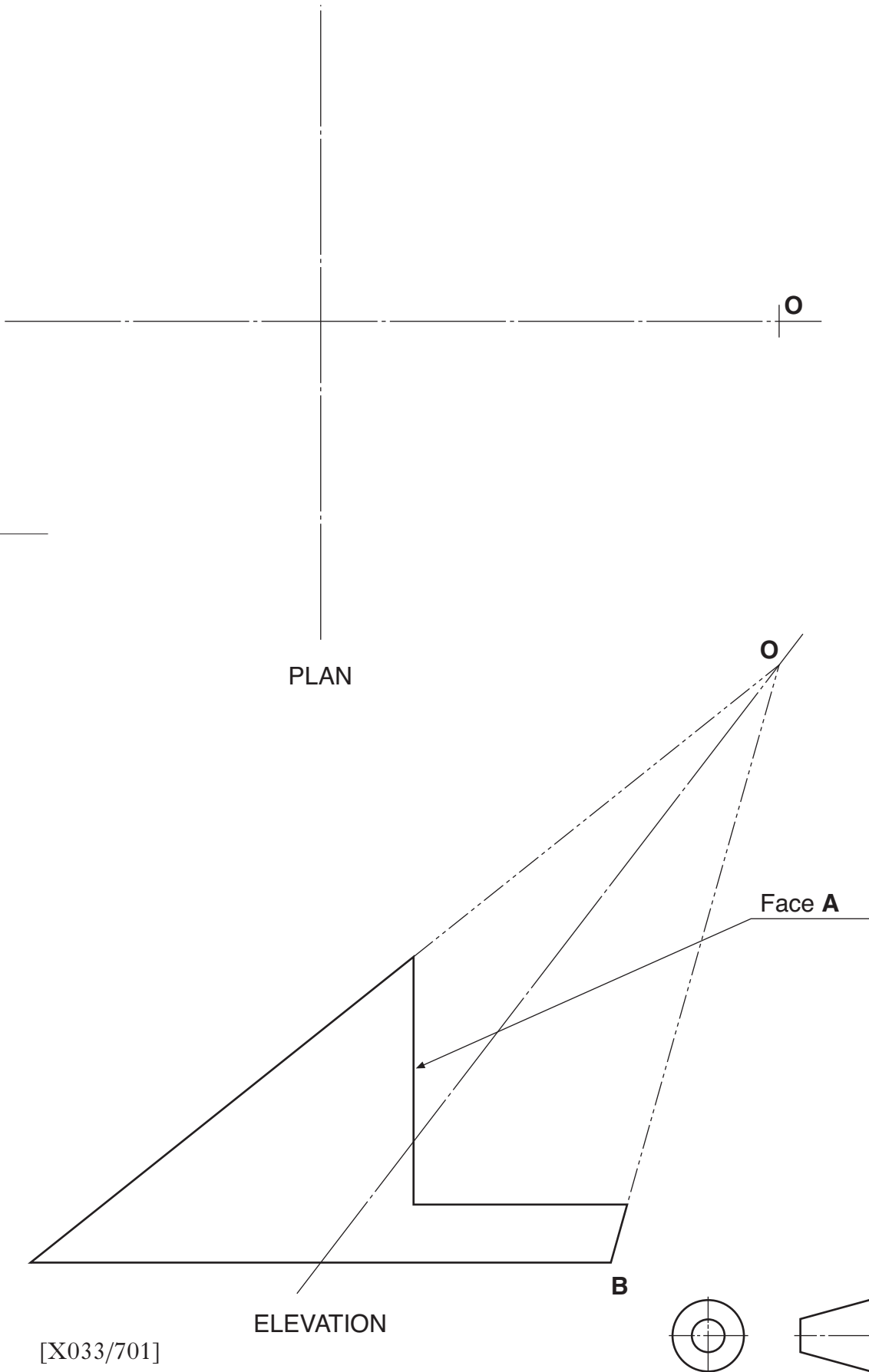
<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>d</i>	
<i>e</i>	
<i>f</i>	
<i>g</i>	
<i>h</i>	
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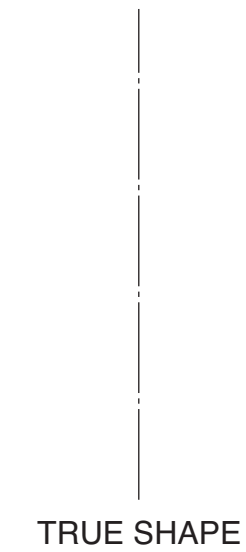
The elevation of a solid partial oblique cone is given.

Draw, from the given view:

- (a) the plan of the cone;
- (b) the true shape of face **A**;
- (c) the surface development of the curved surface starting at **OB**. **(16 marks)**



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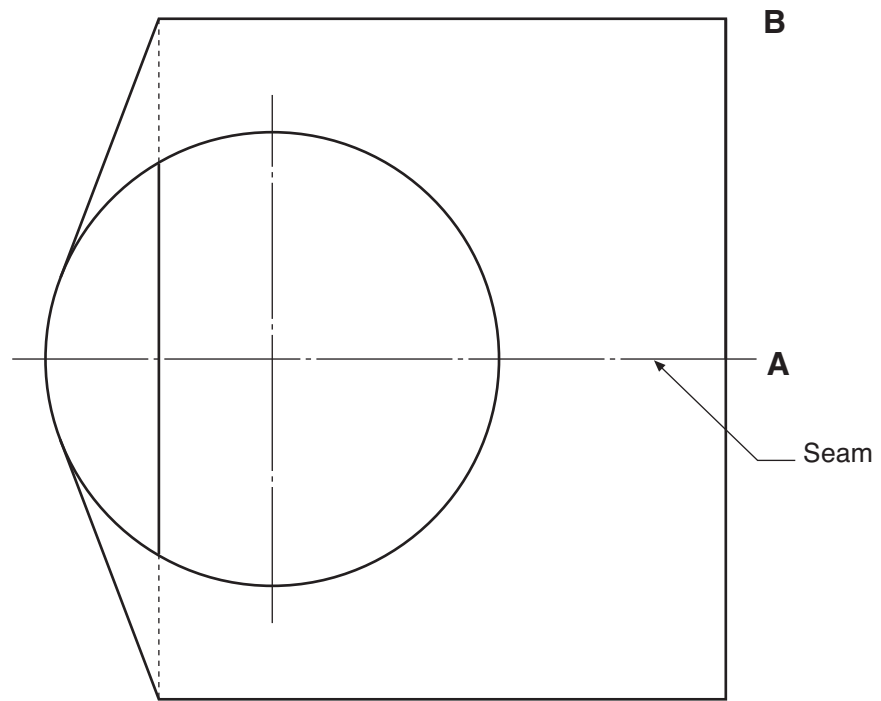


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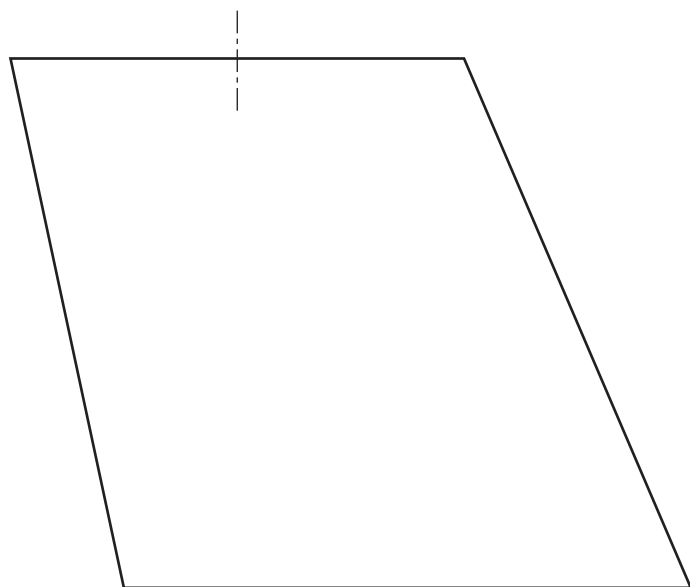
The elevation and plan of a transition piece are shown.

Draw, starting at **AB**, the surface development of the transition piece with the seam in the position given. **(12 marks)**

(12 marks)

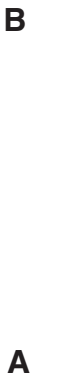


PLAN

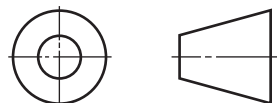


ELEVATION

<i>a</i>	
<i>b</i>	
<i>c</i>	
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[END OF QUESTION PAPER]



ACKNOWLEDGEMENTS

Question 1—Article *Health Problems* taken from *Healthy Living for Everyone*. Reproduced by kind permission of Asda.