



**2008 Graphic Communication**

**Advanced Higher**

**Finalised Marking Instructions**

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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)

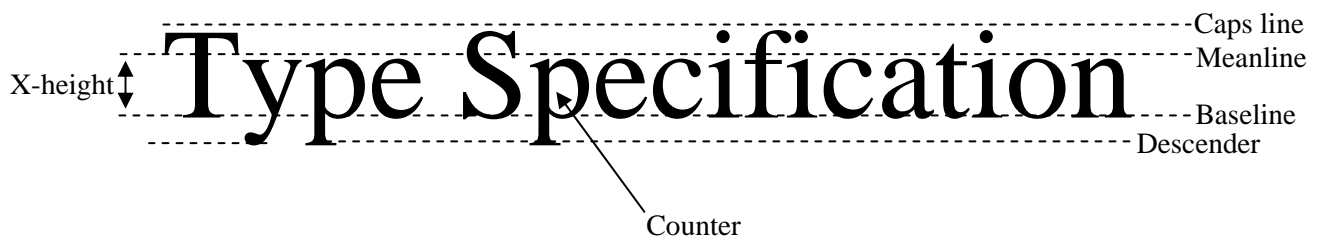
The image shows a two-page spread from a magazine with various annotations. The left page has a sub-headline 'Health Problems' at the top. Below it are several columns of text with sub-headings: 'DISTURBING BOWEL SYNDROME', 'OSTEOPOROSIS', 'CAN I HELP MYSELF?', 'RHEUMATOID ARTHRITIS', 'ARTHRITIS', 'CAN I HELP MYSELF? OSTEoarthritis', and 'RHEUMATOID ARTHRITIS'. There are also small images of pills and a bowl of food. The right page continues the text and features a large image of pills. Annotations include 'Grid Structure' pointing to the overall layout, 'Gutter' pointing to the space between columns, 'Body Text' pointing to the main text blocks, 'Sub-Headline' pointing to the 'Health Problems' header, 'Left Margin' pointing to the left edge of the page, and 'Bleed' pointing to the right edge of the page.

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

Typographical features:

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

Sample Text:



1 mark for each of the terms correctly marked on the diagram.

6

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

**H**                      **H**

*Serif is a term for characters that have a line crossing or tail between the two free ends of the stroke.*

*Sans serif (sans means without) is a typeface without serifs.*

1 mark for both of the sketches and 1 mark for the explanation.  
(No ½ marks)

2

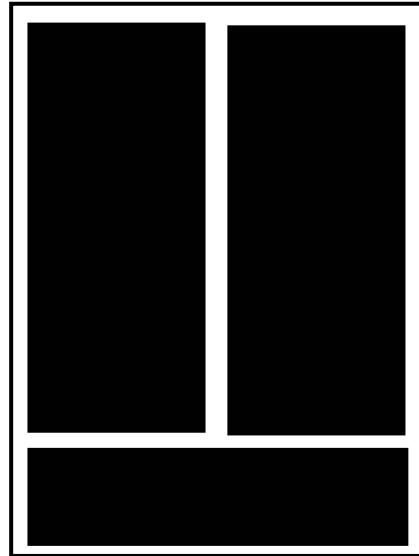
(8)

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

- Symmetrical
- Asymmetrical.

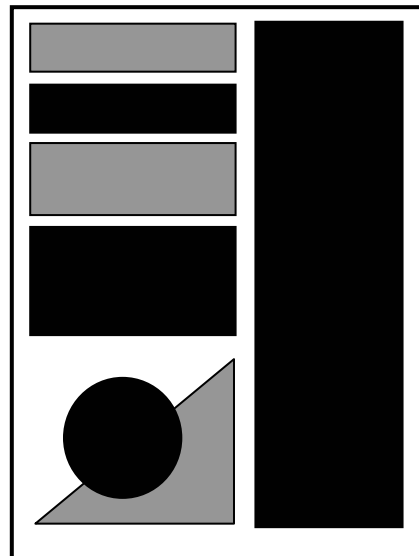
For each type of “Balance”, sketch or describe the typical layout of a DTP page.

- (a)
- *The text and the graphic have been centre aligned and as a result the axis of symmetry runs down the centre of the page.*
  - *When elements on one side of the page are exactly matched by the other, or can match top half to bottom half.*



2

- (b)
- *The graphic has been placed on the left with a balancing graphics or text on the right hand side, or vice versa.*
  - *When the elements on one side of the page are not exactly matched by the elements on the other, or do not match top to bottom.*



2

**2 marks for a good description or for a good sketch, related to the balance.  
1 mark for a fair description of the balance  
(No ½ marks)**

(4)

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

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

**Contrast**

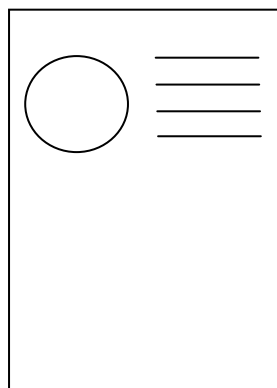
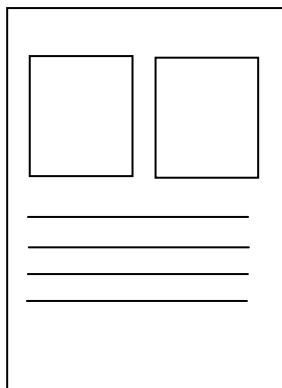
*Contrast adds variety to a design. It can bring attention to or allow individual elements to stand out. Contrast can be achieved by size, weight, colour or shape.*



2

**Shape**

*Can be used to highlight, organise or set apart information/elements. Alone or in combination with other shapes or lines, shape can convey meaning as well as guide the eye or organise information.*



2

**White Space**

*White space is the absence of text and graphics. It breaks up text and graphics. It provides visual breathing room for the eye. Add white space to make a page less cramped, confusing or overwhelming.*

2

**2 marks each**

**1 mark for sketch demonstrating feature**

**1 mark for explanation**

**(No ½ marks)**

**(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**

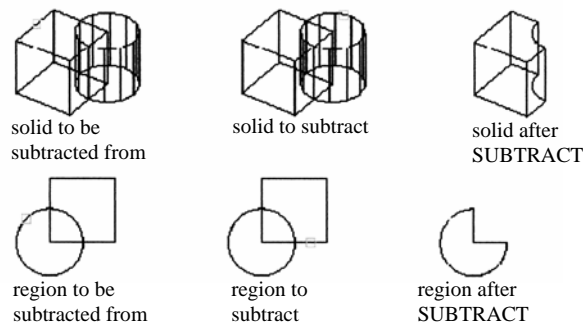
*UNION allows the user to combine the total volume of two or more solids or two or more regions into a composite object.*



2

**Subtraction**

*SUBTRACT allows the user to remove the common area of one set of solids from another. For example, you can use SUBTRACT to add holes to a mechanical part by subtracting cylinders from the object.*



2

**Intersection**

*INTERSECT allows the user to create a composite solid from the common volume of two or more overlapping solids. INTERSECT removes the non-overlapping portions and creates a composite solid from the common volume.*



2

**1 mark for sketch**  
**1 mark for each explanation**  
**(No ½ marks)**

(6)

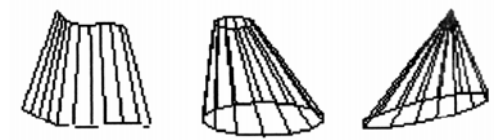
6. The following terms are associated with Computer-Aided 3D Surface Modelling.

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

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

**Term 1**

*RULESURF constructs a polygon mesh representing the ruled surface between two curves. The objects you select define the edges of the ruled surface. The objects can be points, lines, splines, circles, arcs or polylines. If one of the boundaries is closed, then the other boundary must also be closed. You can use a point as the other boundary for either an open or a closed curve, but only one of the boundary curves can be a point.*

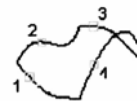


examples of ruled surfaces

*For closed curves, the selection does not matter.*

*For closed polylines, the ruled surface starts at the last vertex and proceeds backward along the segments of the polyline.*

*EDGESURF constructs a three-dimensional (3D) polygon mesh from four adjoining edges. You must select the four adjoining edges that define the surface patch. The edges can be lines, arcs, splines, or open 2D or 3D polylines. The edges must touch at their endpoints to form a topologically rectangular closed path. You can select the four edges in any order.*

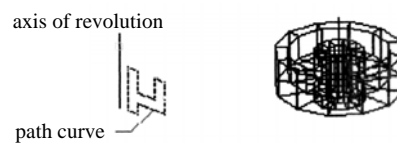


- Select object 1 for surface edge:
- Select object 2 for surface edge:
- Select object 3 for surface edge:
- Select object 4 for surface edge:

2

**Term 2**

*REVSURF constructs a polygon mesh approximating a surface of revolution by rotating a path curve or profile (lines, circles, arcs, ellipses, elliptical arcs, polylines, or splines, closed polylines, polygons, closed splines or donuts) about a specified axis. The path curve is swept about the selected axis to define the surface.*



*THICKNESS is to take an entity such as a line or circle and to give it thickness. Thickness is the distance an entity is extruded above or below its elevation. Entities that can be given thickness include: lines, circles, arcs, polylines and points.*

2

**1 mark for sketch**

**1 mark for each explanation**

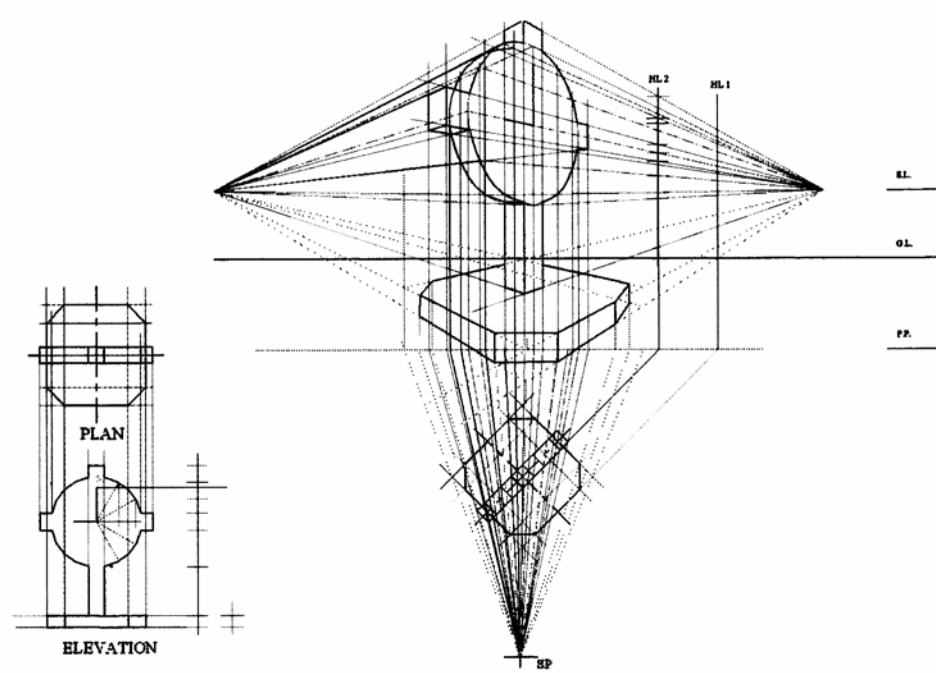
**(No 1/2 marks)**

**(4)**

**7. Measured Perspective – Clock (18 marks)**

- (a) Location of V1 & V2 (both required) 1
- (b) VP1 + VP2 (both required) 1
- (c) Height line (H2) (either left or right) 1
- (d) Construction on Elevation & Plan (some sort of division of the circle) 1
- (e) Front Circle 8 points 3  
8 = 3, 7-6 = 2, 4-5 = 1
- (f) Smooth curve 1  
Good = 1
- (g) Back part circle 6 points 1  
5-6 = 1
- (h) Smooth curve 1  
Good = 1
- (i) Height line (H1) 1
- (j) Oct Base 2  
14-11 = 2, 10-6 = 1
- (k) Stem 2  
6 = 2, 5-4 = 1
- (l) Cross Bars 3  
17-15 = 3, 14-10 = 2, 9-7 = 1

**Total 18**



**8. Oblique cone (16 marks)**

**Plan**

- (a) Plan (divided into 12 segments) include circle 1
- (b) 7 points – ellipse/circle 1
- (c) Hidden edge 1
- (d) Straight edge (vert) 1

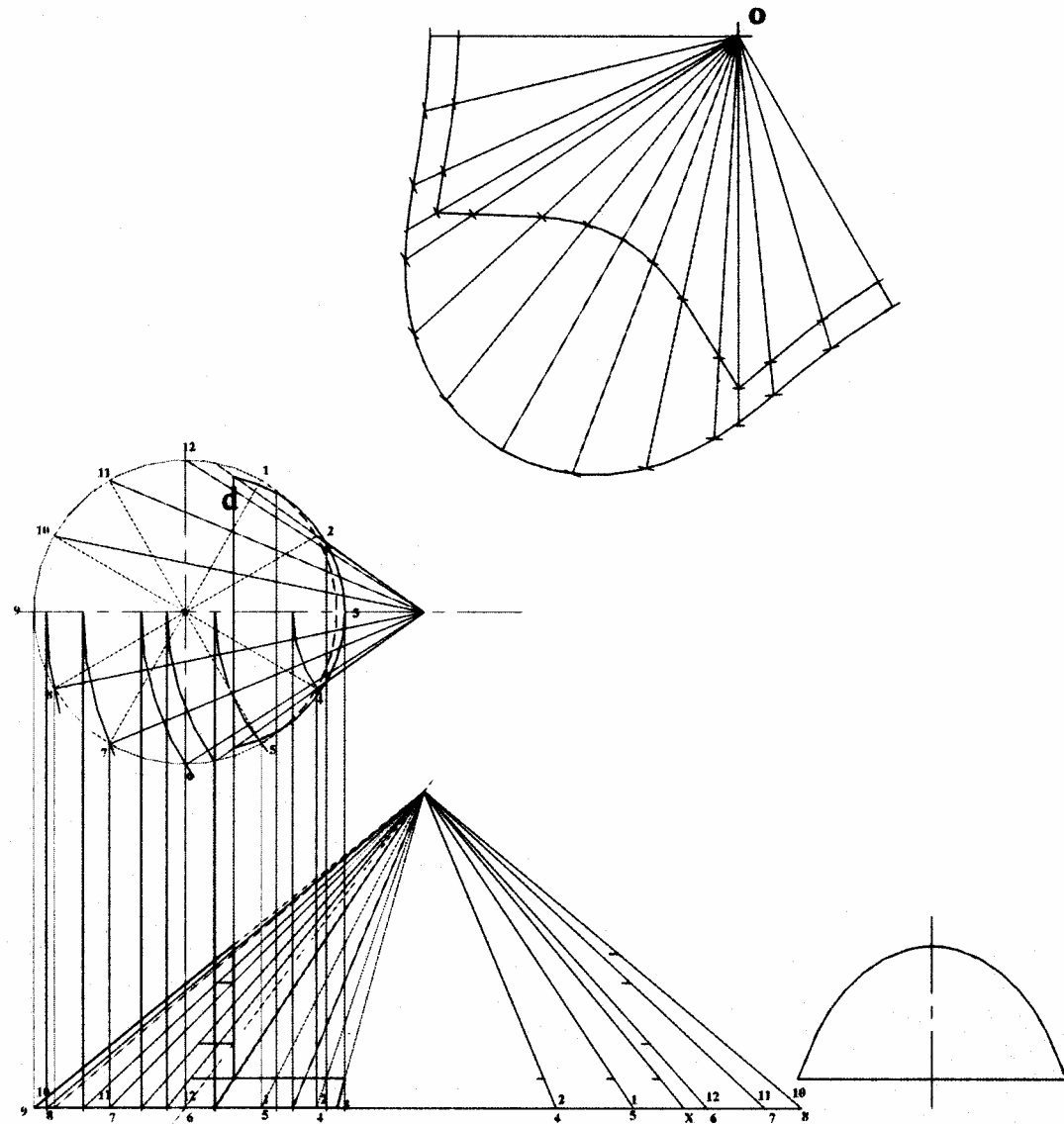
**Development**

- (e) True length generators in elevation (clearly showing construction & true length) 3  
5-6 = 3, 3-4 = 2, 2 = 1
- (f) 13 true lengths (original outline) 2  
12-13 = 2, 8-11 = 1
- (g) 13 true lengths (inner curve) 2  
11-13 = 2, 6-10 = 1
- (h) Additional 2 points 1  
2 = 1, 1 = 0
- (i) Smooth curve 1  
Good = 1

**True Shape**

- (j) 7 points – ellipse (const.) 1  
5-7 = 1
- (k) Additional 2 points 1  
2 = 1, 1 = 0
- (l) Smooth curve 1  
Good = 1

**Total 16**

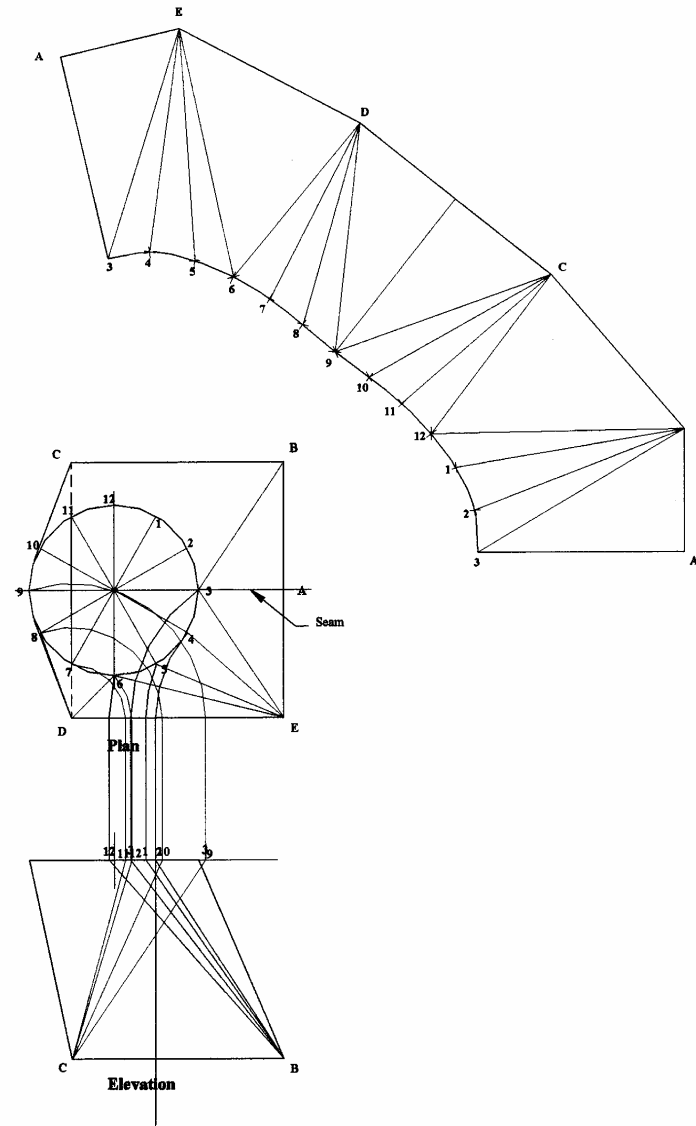


9. Transition (12 marks)

Development

- |     |   |   |
|-----|---|---|
| (a) | True length construction B/E  | 1 |
| (b) | True length construction C/D  | 1 |
| (c) | Perimeter<br>6 = 2, 4-5 = 1   | 2 |
| (d) | Development construction 13 points<br>13 = 7<br>12 = 6<br>11 = 5<br>10 = 4<br>9 = 3<br>8 = 2<br>7 = 1 | 7 |
| (e) | Smooth curve<br>Good = 1  | 1 |

**Total 12**



[END OF MARKING INSTRUCTIONS]