

[C033/SQP088]

Intermediate 2 Time: 2 hours 30 minutes NATIONAL
Graphic Communication QUALIFICATIONS
Specimen Question Paper

Fill in these boxes and read what is printed below.

Full name of school or college

Town

First name and initials

Surname

Date of birth

Day Month Year

Candidate number

Number of seat

- 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 Dimensions are given in millimetres or as stated.
- 6 Orthographic drawings are in third angle projection.

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

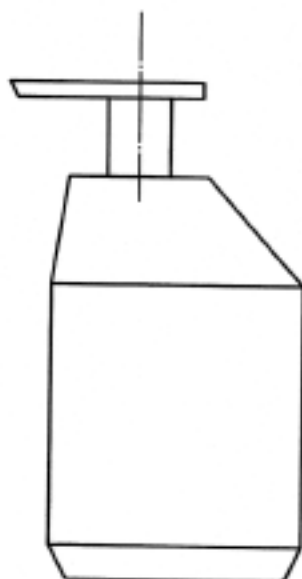
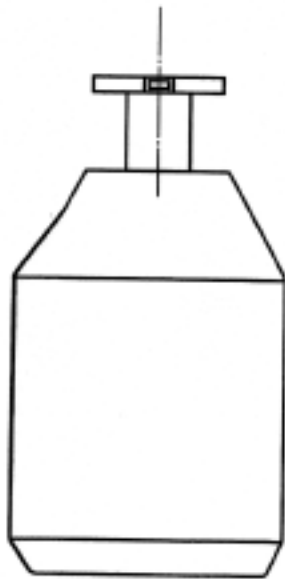
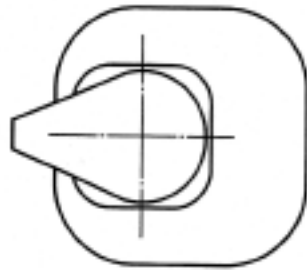
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
9	
Total Marks	

1

Three views of a soap dispenser are shown full size.

- (a) Sketch, approximately full size, a two-point perspective view of the soap dispenser.
- (b) Render the sketch to give the impression of light and shade.
Your sketch should show the opening through which the soap is dispensed.
Do not show hidden detail.

(9 marks)



1

2

An elevation and incomplete plan of a small table lamp are shown.

Draw:

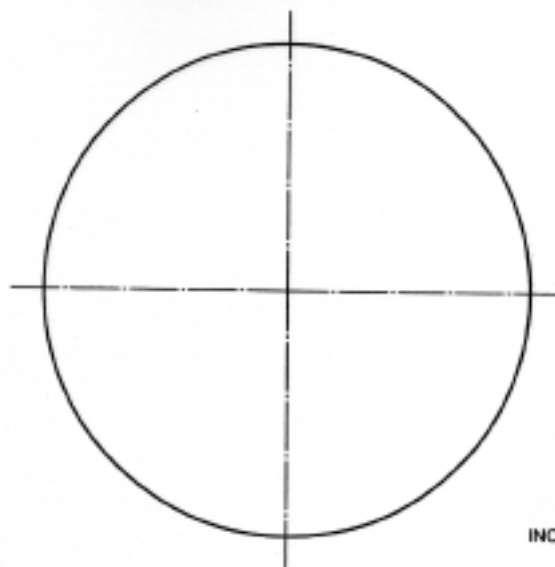
- (a) the complete plan, including hidden detail;
- (b) a development of the shade.

(12 marks)

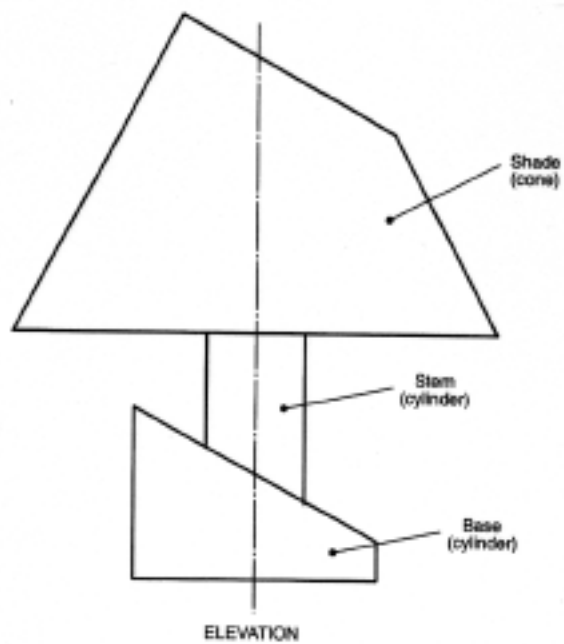
DEVELOPMENT OF SHADE



2



INCOMPLETE PLAN



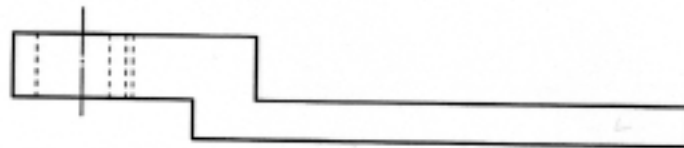
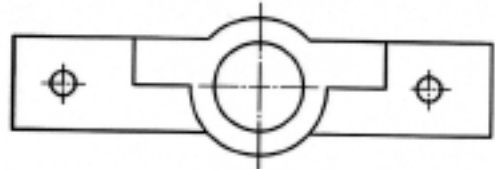
3

The three main parts of a window locking handle are shown full size.
Draw an oblique exploded view of the locking handle, showing the correct order of assembly.
(13 marks)

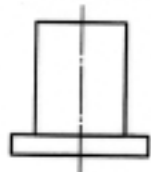
3



PLATE



HANDLE



PIN



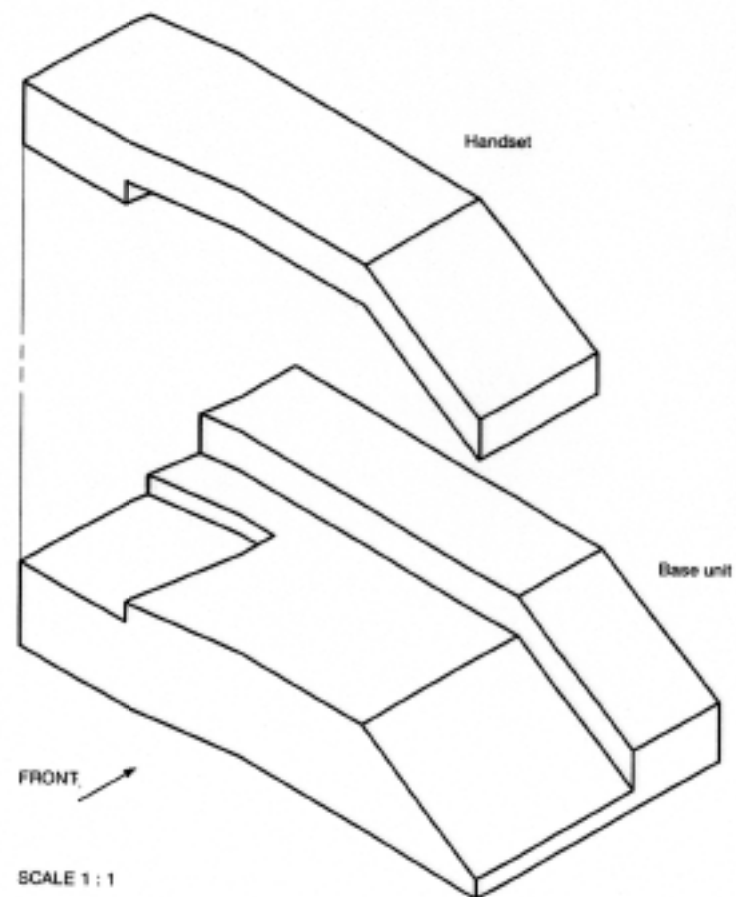
Start point for pin

4

A preliminary sketch of a toy telephone is shown below as an exploded view.
Draw the assembled base unit and handset, full size, in the following views:

- (a) elevation;
- (b) plan;
- (c) end elevation.

(10 marks)



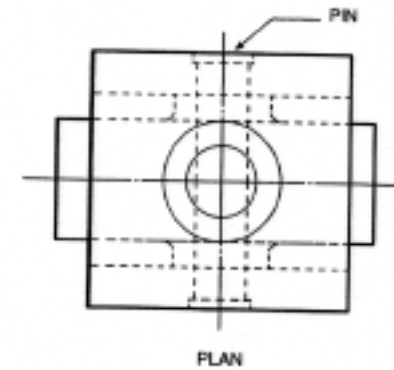
ELEVATION

END ELEVATION

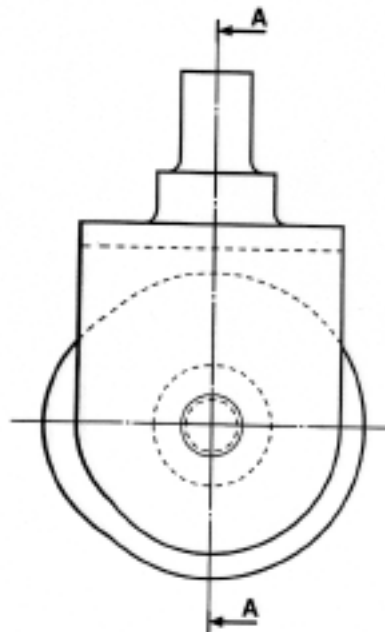
4

- 5 An elevation and plan of a trolley castor are given.
Draw the sectional elevation on AA.
Do not show hidden detail.

(10 marks)



PLAN



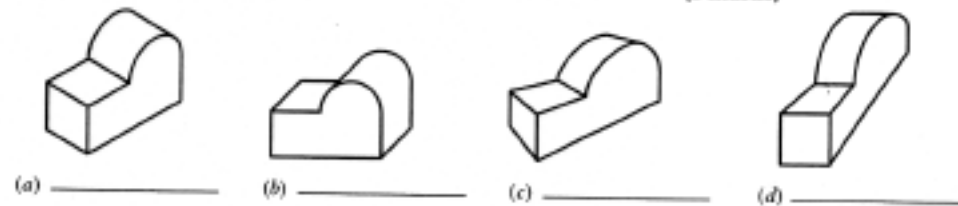
ELEVATION

SECTIONAL ELEVATION AA

[C03]/SQ/P88/7

- 6 A shaped block has been drawn below in four different projections.
Name the type of projection used in each case.

(2 marks)



(a) _____ (b) _____ (c) _____ (d) _____

- 7 An outline elevation of a small round bottle is shown.

The height of the bottle is 90 mm.

On the drawing given, add the following dimensions according to the relevant British Standards convention.

- (a) Diameter of the top 30 mm
(b) Large curve radius of 40 mm
(c) Height of bottle 90 mm
(d) Centre line



(4 marks)

- 8 Modern desktop publishing packages have a large number of commands and features including:

- (a) import graphics; (b) copy; (c) paste; (d) crop.

Explain clearly how each of these commands and features could be used in the production of a presentation graphic.

(8 marks)

- (a) _____

- (b) _____

- (c) _____

- (d) _____

- 9 An engineering company has decided to invest in a computer-aided draughting (CAD) system.
Explain how the introduction of CAD could benefit the company.

(2 marks)

- _____

Candidate's Name _____

[C033/SQP088]

Intermediate 2 Time: 2 hours 30 minutes
Graphic Communication
Specimen Marking Instructions

**NATIONAL
QUALIFICATIONS**

Intermediate 2

Graphic Communication

Question 1

2 pt perspective in proportion 1

Nozzle detail shown clearly 1

Stem 1

Body detail

Slope 2

Middle 1

Base 1

Rendering

All parts 2

TOTAL MARKS (9)

Question 2

Plan

Construction (12 divisions) 1

Position of generators in elevation 1

Projection of curve points to generators

1 + 1, for vertical point 2

Freehand curve to show lamp opening 1

Base circle - hidden section 1

solid section ½

Stem circle solid only ½

Shade development

Construction (12 divisions) 1

True length of seam ½

Rim of shade length tolerance ± 10 mm ½

Points on shade opening 2

Freehand curve 1

TOTAL MARKS (12)

Question 3**Bracket**

Vertical	6 lines	$3 - 4 = \frac{1}{2}$	$5 - 6 = 1$	
Horizontal	6 lines	$3 - 4 = \frac{1}{2}$	$5 - 6 = 1$	
45°	8 lines	$3 - 4 = \frac{1}{2}$	$5 - 8 = 1$	
Curves	3 off	$2 = \frac{1}{2}$	$3 = 1$	
Circles	3 off	$2 = \frac{1}{2}$	$3 = 1$	5

Handle

Vertical	5 lines	$3 - 4 = \frac{1}{2}$	$5 = 1$	
Horizontal	5 lines	$3 - 4 = \frac{1}{2}$	$5 = 1$	
45°	6 lines	$3 - 4 = \frac{1}{2}$	$5 - 6 = 1$	
Angle	3 off	$2 = \frac{1}{2}$	$3 = 1$	
Circle	1 off	$1 = \frac{1}{2}$		
Part circle	1 off	$1 = \frac{1}{2}$		5

Pin

45°	4 lines	$3 - 4 = \frac{1}{2}$		
Circle	1	$1 = \frac{1}{2}$		
Part circles	2	$1 = \frac{1}{2}$	$2 = 1$	2
Correct projection	$= \frac{1}{2}$			
Clearly exploded	$= \frac{1}{2}$			1

TOTAL MARKS (13)**Question 4****Elevation**

Vertical lines 5	$3 - 4 = \frac{1}{2}$	$5 = 1$	
Horizontal lines 4	$3 - 4 = \frac{1}{2}$		
Sloping Lines 2		$\frac{1}{2}$	
Hidden detail 2		1	3

Plan

Vertical lines 9	$3 - 4 = \frac{1}{2}$	$5 - 7 = 1$	$8 - 9 = 1\frac{1}{2}$
Horizontal Lines 8	$3 - 4 = \frac{1}{2}$	$5 - 7 = 1$	$8 = 1\frac{1}{2}$
Hidden detail 1			$\frac{1}{2}$

3½

End Elevation

Vertical lines 9	$3 - 4 = \frac{1}{2}$	$5 - 7 = 1$	$8 - 9 = 1\frac{1}{2}$
Horizontal lines 8	$3 - 4 = \frac{1}{2}$	$5 - 7 = 1$	$8 = 1\frac{1}{2}$
Hidden detail 1			$\frac{1}{2}$

3½

TOTAL MARKS (10)

Question 5

a)	Locating pin to trolley leg	1
b)	Wheel housing base	2
c)	Wheel	1
d)	Wheel boss	1
e)	Wheel pin/shaft	2
f)	Section areas	2
g)	Section convention	1

TOTAL MARKS (10)**Question 6**

a)	Isometric	$\frac{1}{2}$
b)	Oblique	$\frac{1}{2}$
c)	Two point perspective	$\frac{1}{2}$
d)	One point perspective	$\frac{1}{2}$

TOTAL MARKS (2)**Question 7**

a)	symbol \emptyset	= $\frac{1}{2}$	leader lines etc	= $\frac{1}{2}$
b)	R 40	= $\frac{1}{2}$	leader line	= $\frac{1}{2}$
c)	90 position	= $\frac{1}{2}$	leader lines	= $\frac{1}{2}$
d)	correct line	= $\frac{1}{2}$	position	= $\frac{1}{2}$

TOTAL MARKS (4)**Question 8**

2 marks each for a clear explanation (a) to (d)

- (a) The package could import scanned images eg photographs, CAD files or clip art. The imported image could be positioned on the page to enhance the article and give additional information.
- (b) There are many common pieces of information given on articles. These common areas can be cut and copied onto other pages or different articles. The graphic or text could be used in any similar article.
- (c) Paste is used to "drop" either text or a graphic onto the desktop after it is copied. The paste command would allow the easy positioning of text and graphic items. Text and graphics from a wide variety of sources could be pasted into a magazine.

Question 8 (Continued)

- (d) The crop command allows the operator to cut away" any unwanted section from a graphic. This would allow the operator to focus on the required section of a photograph which was important to the article.

TOTAL MARKS (8)

Question 9

2 marks for a clear explanation

CAD would allow the company to become more efficient, reduce lead time for new contracts, allow the company to send drawings by electronic means, allow fast editing of drawings, small storage space, data base linked to the drawing to give fast costing of material and furnishings, etc.

TOTAL MARKS (2)

[END OF MARKING INSTRUCTIONS]