

B O A R D O F S T U D I E S
NEW SOUTH WALES

2012

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Industrial Technology

Graphics Technologies

General Instructions

- Reading time – 5 minutes
- Working time – $1\frac{1}{2}$ hours
- Write using black or blue pen
Black pen is preferred
- Draw diagrams using pencil
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of page 9

Total marks – 40

Section I Pages 2–6

10 marks

- Attempt Questions 1–10
- Allow about 20 minutes for this section

Section II Pages 9–12

15 marks

- Attempt Questions 11–15
- Allow about 35 minutes for this section

Section III Page 13

15 marks

- Attempt Question 16
- Allow about 35 minutes for this section

Section I

10 marks

Attempt Questions 1–10

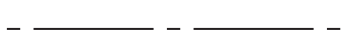
Allow about 20 minutes for this section

Use the multiple-choice answer sheet for Questions 1–10.

1 Which line represents a centre line in an engineering drawing?

(A) 

(B) 

(C) 

(D) 

2 What file format is commonly used for CAD drawings?


(A) .dwg

(B) .dwt

(C) .jpeg

(D) .xls

3 What is the AS1100 standard for engineering dimension lines?

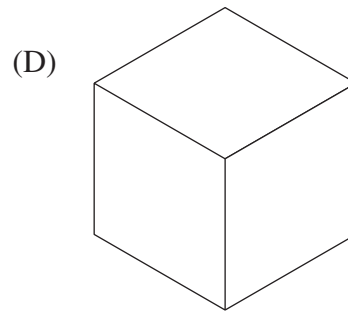
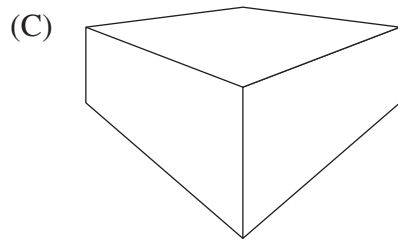
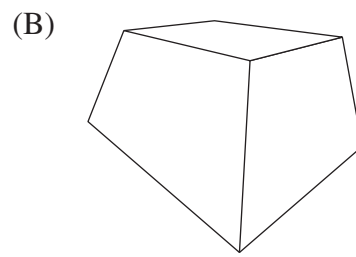
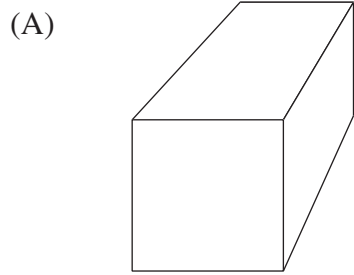
(A) 

(B) 

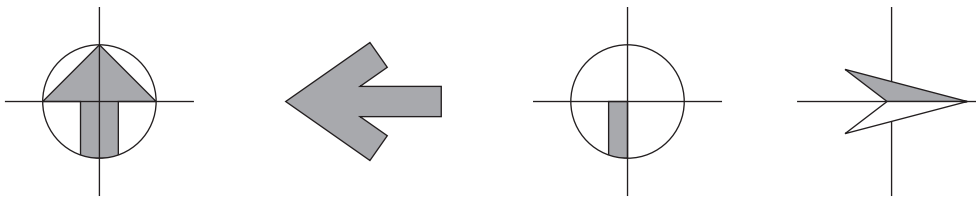
(C) 

(D) 

4 Which pictorial drawing is a two-point perspective?



5 The following symbols are commonly used in architectural site plans.



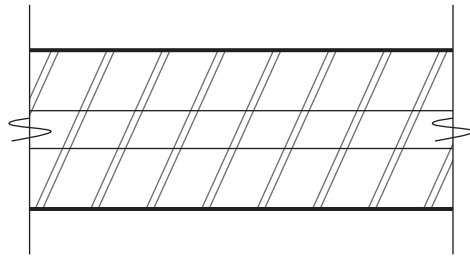
Which direction do they indicate?

- (A) East
- (B) North
- (C) South
- (D) West

6 What does hatching on an orthogonal drawing indicate?

- (A) The front view
- (B) Hidden detail
- (C) A screw thread
- (D) A cross-sectional view

7 What does the following AS1100 symbol represent?

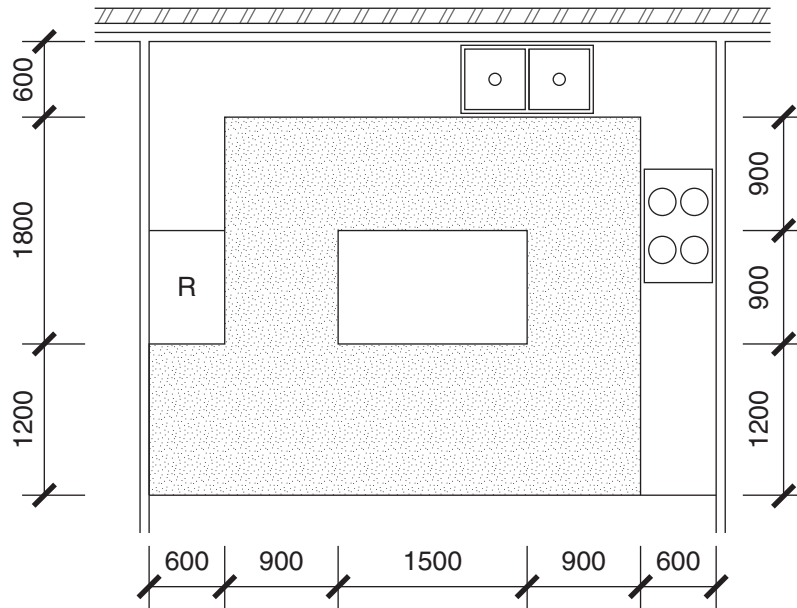


- (A) Brick cavity wall
- (B) Brick veneer wall
- (C) Double stonewall
- (D) Concrete block cavity wall

8 In architectural drawings, the term *building setbacks* refers to the distance between

- (A) internal walls.
- (B) internal and external walls.
- (C) existing and proposed buildings.
- (D) the site boundary and external walls.

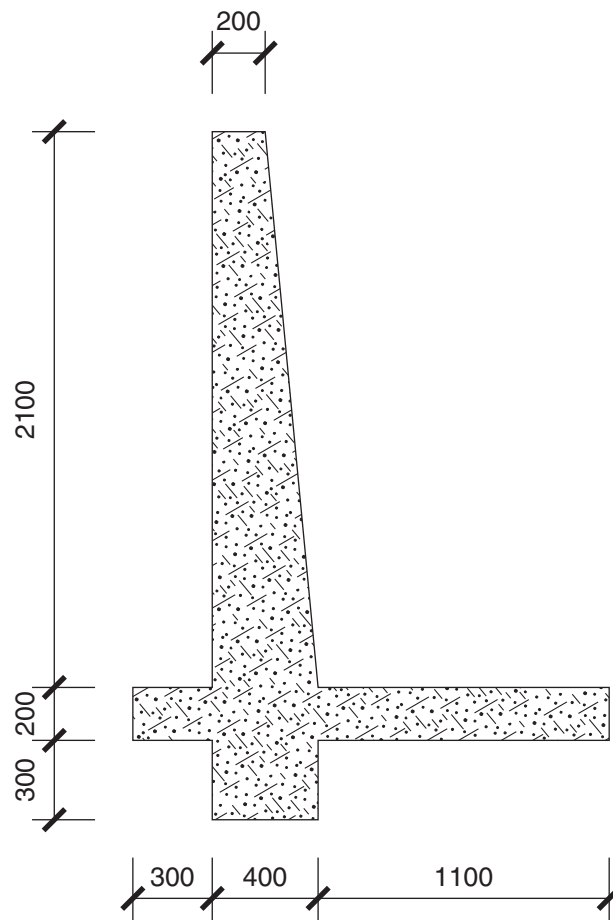
- 9 Tiles are $300\text{ mm} \times 300\text{ mm}$ and there are nine tiles per box. What is the minimum number of boxes required to tile the shaded kitchen floor area?



- (A) 11
- (B) 12
- (C) 13
- (D) 14

10 A cross-section of a retaining wall is shown.

How much concrete is required to construct a 10 m length of the wall?



- (A) 11.1 m^3
- (B) 13.2 m^3
- (C) 14.1 m^3
- (D) 15.9 m^3

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Centre Number

Section II

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Student Number

15 marks

Attempt Questions 11–15

Allow about 35 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 11 (2 marks)

Outline the advantages of CAD drawings over traditional drawing methods.

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Question 12 (3 marks)

What information is commonly found in specifications?

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Question 13 (3 marks)

Describe methods a designer could use to communicate design ideas to a client.

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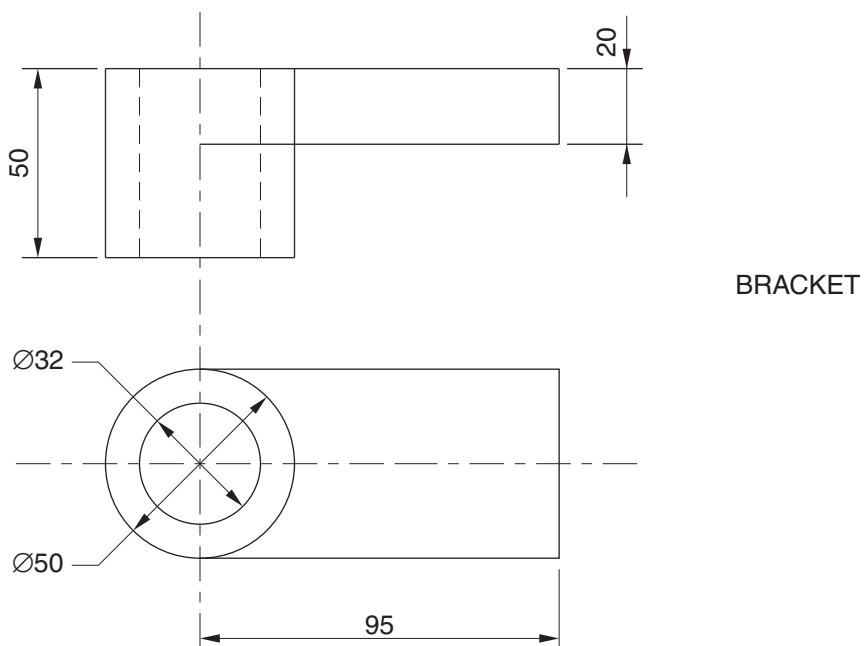
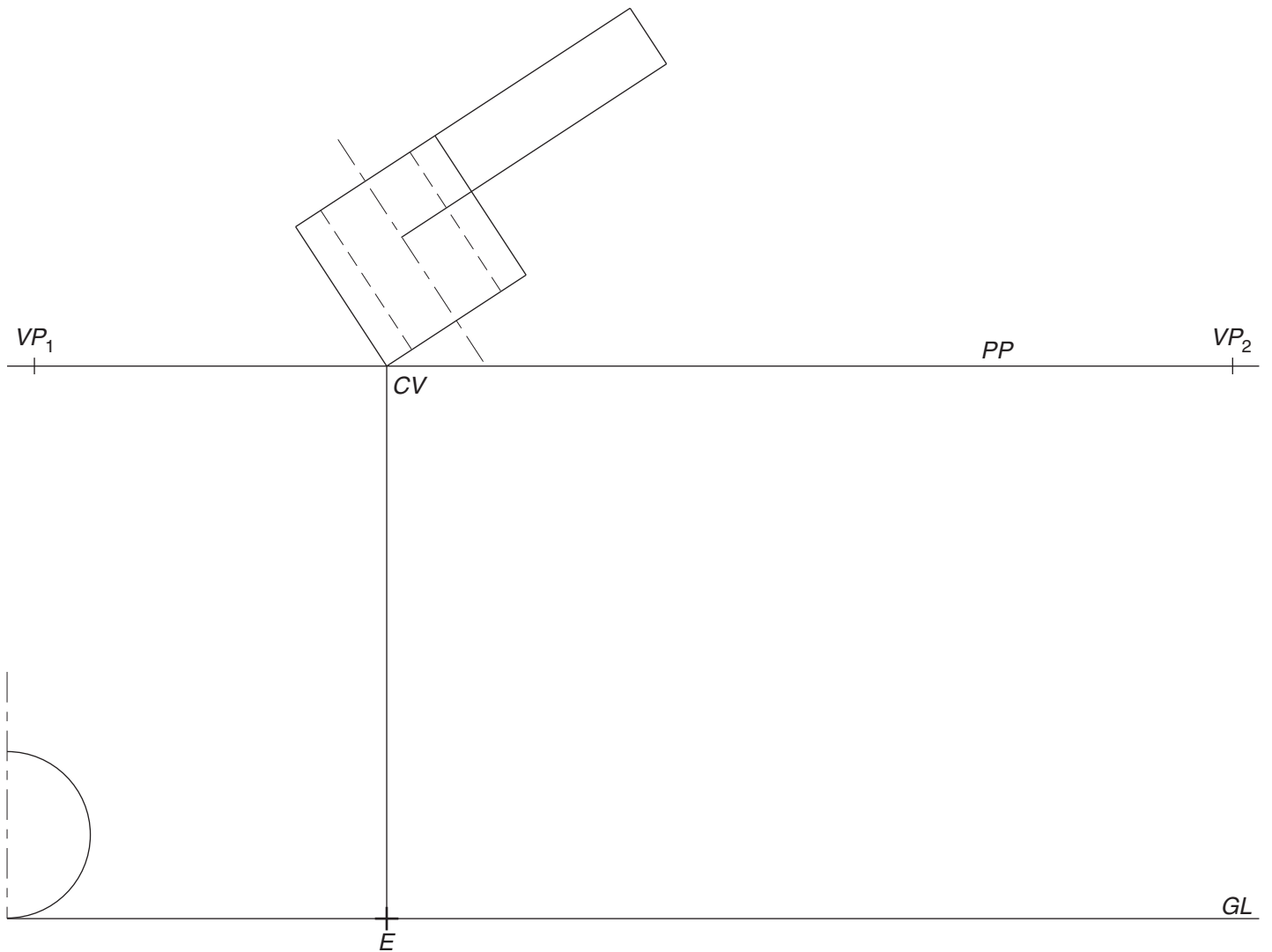
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Question 15 (4 marks)

Complete the two-point perspective.

4



Industrial Technology Graphics Technologies

Section III

15 marks

Attempt Question 16

Allow about 35 minutes for this section

Answer the question in a writing booklet. Extra writing booklets are available.

Question 16 (15 marks)

A company is considering expanding its operations to take advantage of new and emerging web-based technologies.

- (a) Describe a range of web-based technologies the company could use to market and sell its goods and/or services. **5**

- (b) Describe the possible impact on both the work practices and the organisation of the company if web-based technologies were implemented. **10**

End of paper

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