

Industrial Technology

Graphics Technologies

General Instructions

- Reading time – 5 minutes
- Working time – 1½ 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 5

Total marks – 40

Section I Pages 2–4

10 marks

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

Section II Pages 5–8

15 marks

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

Section III Page 9

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 What does this symbol represent?

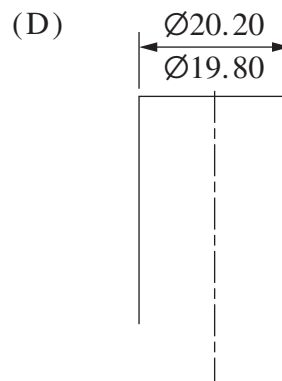
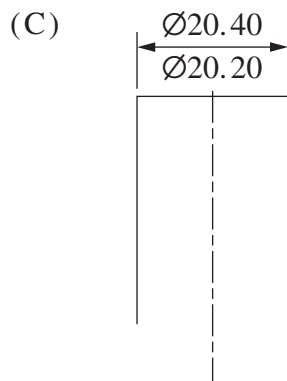
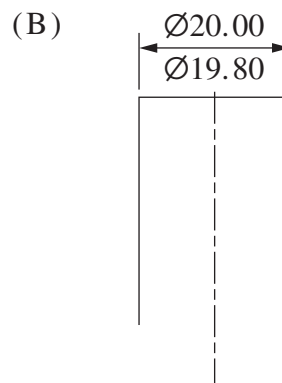
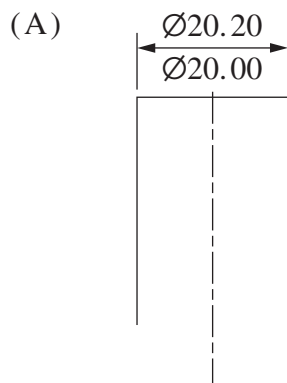


- (A) A garage roller door
 - (B) A single sliding door
 - (C) A double cavity door
 - (D) A double hinged door
- 2 In which of the following are ALL of the types of drawings listed pictorial drawings?
- (A) Isometric, oblique, orthogonal, perspective
 - (B) Axonometric, isometric, oblique, orthogonal
 - (C) Axonometric, isometric, oblique, perspective
 - (D) Axonometric, isometric, orthogonal, perspective
- 3 To make a determination on a development application (DA) for a new school, a local council takes into account
- (A) the scaffolding equipment required.
 - (B) the likely impacts on traffic flow.
 - (C) the engineering required to prepare the site.
 - (D) the financial cost of the materials for the construction.
- 4 What is prescribed by the drawing code AS1100?
- (A) All drawings need to be rendered.
 - (B) All dimensions are in millimetres.
 - (C) All drawings have a scale of 1:100.
 - (D) All drawings contain a front, top and side view.

5 What architectural style describes buildings built between 1900 and 1914 in NSW?

- (A) Classical
- (B) Federation
- (C) Neo-classical
- (D) War service homes

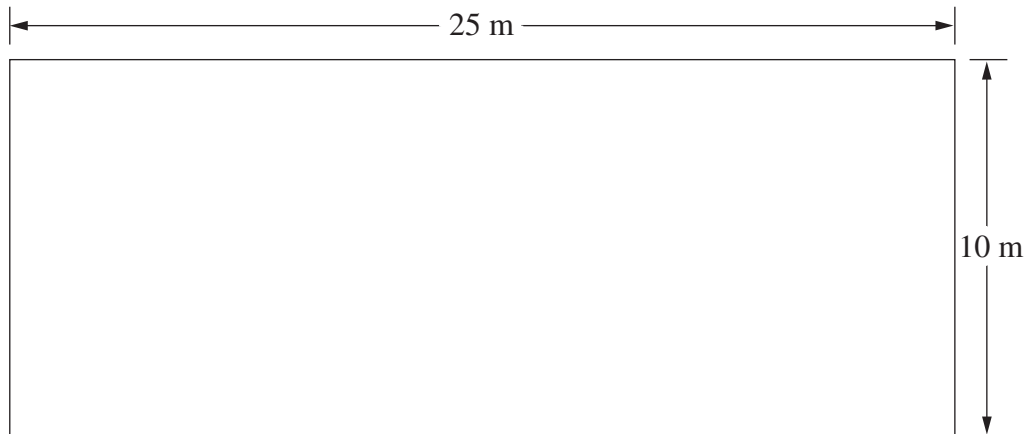
6 What is the expression for a tolerance of diameter $20\text{ mm} \pm 0.2$ on the steel pin shown?



7 What is a function of an architectural model in a development proposal?

- (A) A model can be rendered.
- (B) A model displays more technical detail.
- (C) A model presents a two-dimensional view.
- (D) A model displays how the design fits the environment.

- 8 The dimension of a graphics workplace are shown. 15 m^2 of its floor area is dedicated to storage.



- What percentage of the total floor area is dedicated to storage?
- (A) 6%
(B) 12%
(C) 60%
(D) 67%
- 9 Why is a shadow diagram important for a proposed housing development?
- (A) A council representative can display the development proposal.
(B) The neighbour will see the height of the development.
(C) The neighbours can see how the development may affect their property.
(D) Installations such as solar panels can be installed correctly on the development.
- 10 A large graphics company pays for its workers' professional association fees. The fee is \$457 for a full-time draftsman and \$250 for a part-time draftsman. An apprentice fee is 48% of a part-time draftsman's fee.

How much does it cost the company if there are 137 full-time draftsmen, 22 part-time draftsmen and 27 apprentices?

- (A) \$65 849
(B) \$68 109
(C) \$71 349
(D) \$74 589



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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 (1 mark)

A local council must display plans in a local library. Identify how these plans can be protected when displayed. **1**

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Question 12 (3 marks)

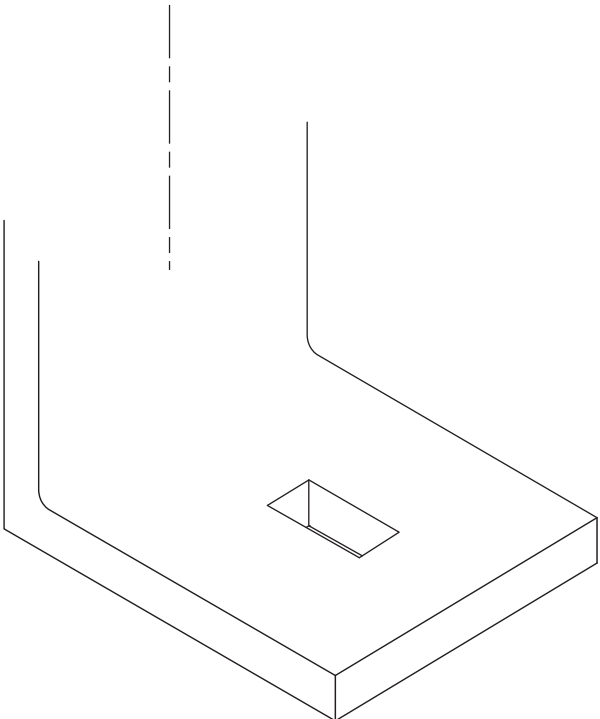
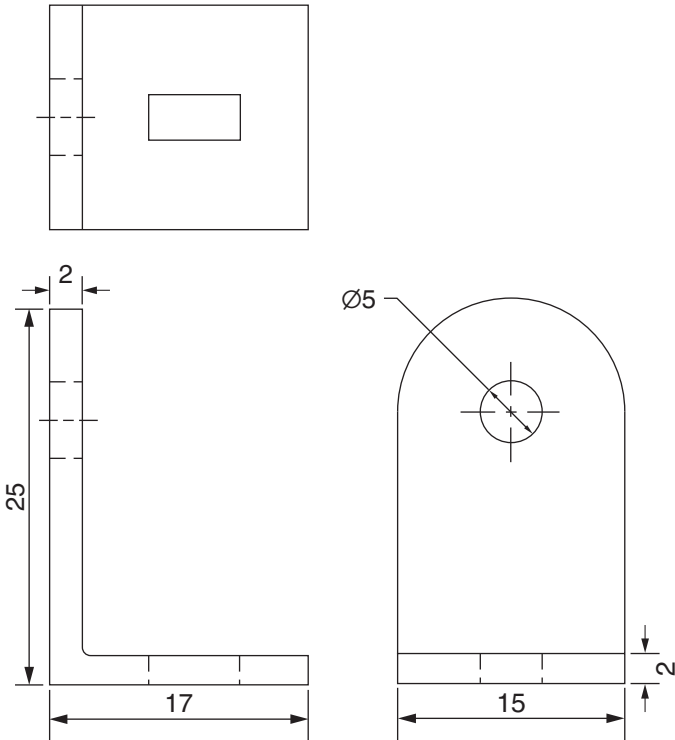
Identify a suitable software package for presenting a residential development to an audience. Justify your choice. **3**

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Question 13 (3 marks)

An orthogonal drawing of a bracket is shown. Complete the isometric drawing of this bracket.

3

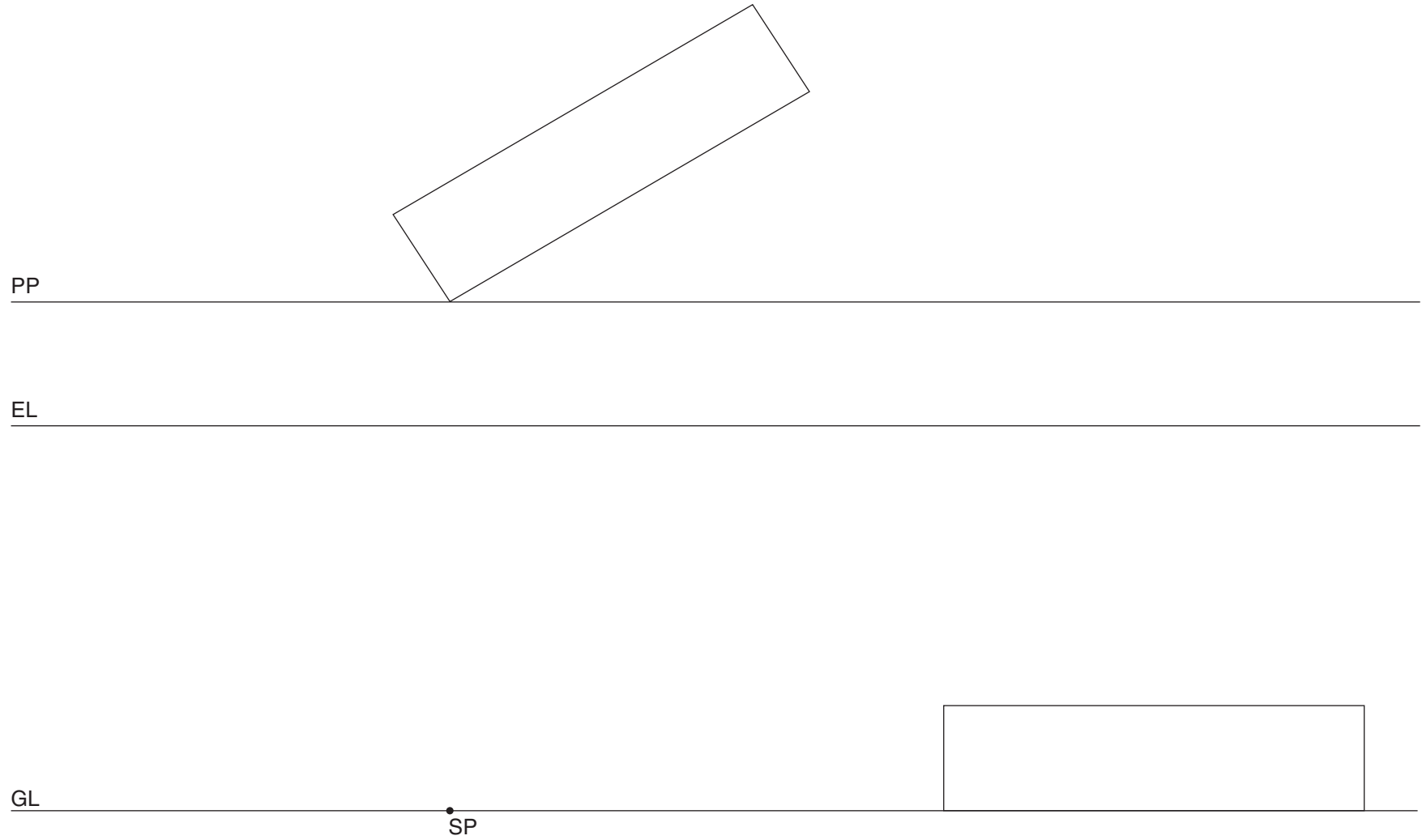


Question 14 (3 marks)

Complete the perspective drawing of a block shown on the ground line.

3

- 7 -

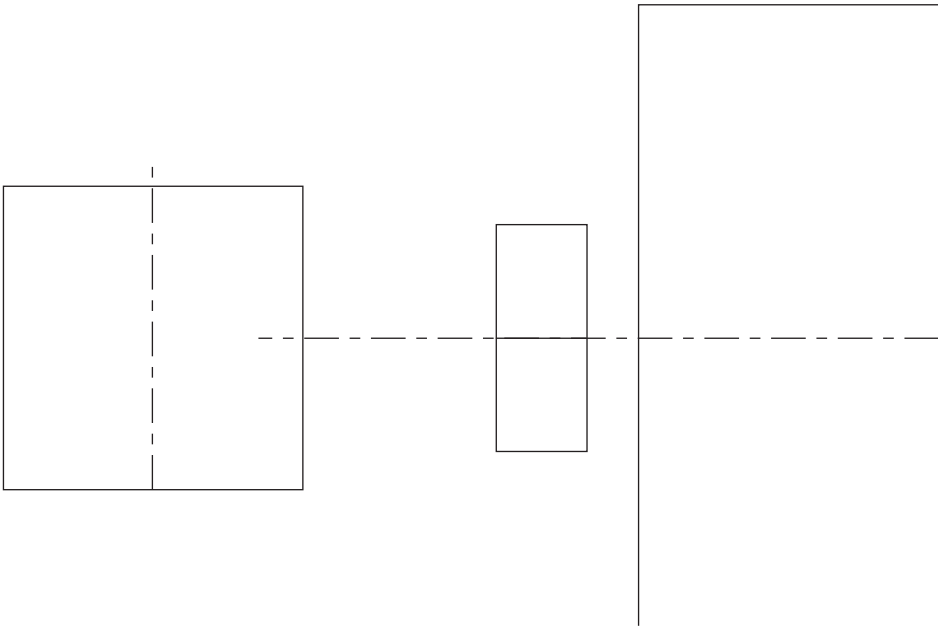
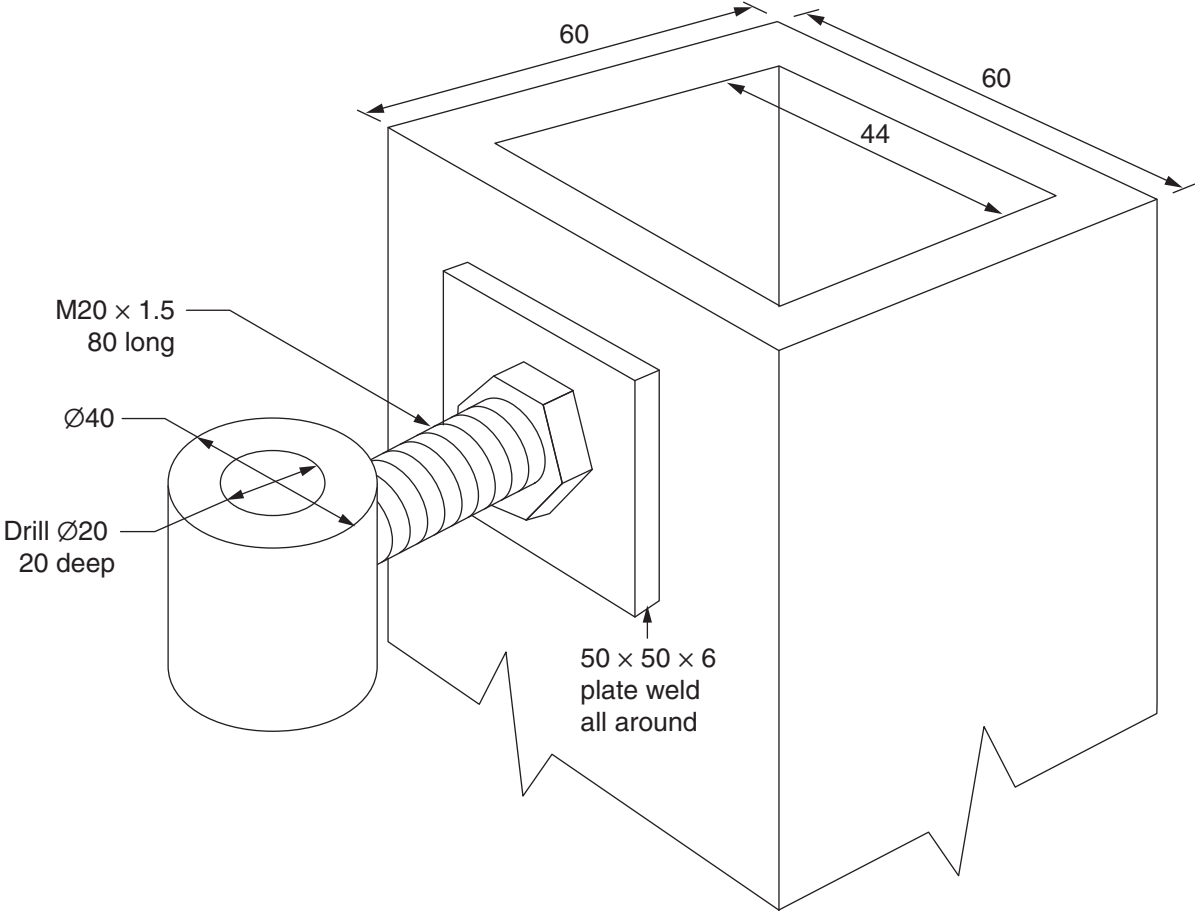


Question 15 (5 marks)

A gate hinge is shown. The plate has an internal thread.

Complete the fully sectioned view which has been started below.

5



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) Describe the impact of government legislation on work practices. **6**
- (b) Evaluate the effect of new and emerging technologies on work practices in industry. **9**

End of paper

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