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Centre Number

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Student Number

2007
HIGHER SCHOOL CERTIFICATE
EXAMINATION

Industrial Technology

Graphics Industries

General Instructions

- Reading time – 5 minutes
- Working time – $1\frac{1}{2}$ hours
- Write using black or blue pen
- Draw diagrams using pencil
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of this page and pages 5, 9, 13 and 17

Total marks – 100

Section I Pages 2–12

60 marks

- Attempt Questions 1–3
- Allow about 55 minutes for this section

Section II Pages 13–20

40 marks

- Attempt Questions 4–5
- Allow about 35 minutes for this section

Section I

60 marks

Attempt Questions 1–3

Allow about 55 minutes for this section

Answer the questions in the spaces provided.

Marks

Use the following information to answer Questions 1, 2 and 3.

IND-TECH is a company in the graphics industry. The company has been awarded a major contract. To meet increased production requirements, the company needs to review its current facilities and practices.

Question 1 (20 marks)

- (a) Outline a method of maintaining quality control during increased production. **2**

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- (b) Identify strategies that the company could use to obtain information for the review of its current facilities and practices. **3**

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Question 1 continues on page 3

Question 1 (continued)

- (c) (i) Define the term *automation*. **1**

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- (ii) Explain how automation can be used to improve the efficiency of production practices. **3**

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- (d) Discuss how increased production could impact on the organisation and management of the company. **4**

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Question 1 continues on page 4

Question 1 (continued)

- (e) IND-TECH is to investigate using other specialist organisations to supply some components for their products.

7

Discuss the advantages and disadvantages of using other organisations in the production process.

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End of Question 1

Industrial Technology
Graphics Industries

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Student Number

Section I (continued)

Marks

Question 2 (20 marks)

- (a) Identify strategies that could be used to minimise waste from the increased production at IND-TECH. **2**

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- (b) What is meant by the term *workplace culture*? Outline a strategy that IND-TECH could use to enhance workplace culture. **3**

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Question 2 continues on page 6

Question 2 (continued)

- (c) Discuss using examples, the impact of government legislation on employees. **4**

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- (d) Evaluate the role of computer technology in training employees. **4**

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Question 2 continues on page 7

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Industrial Technology
Graphics Industries

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Student Number

Section I (continued)

Marks

Question 3 (20 marks)

IND-TECH'S production targets for a 6-month period are shown.

<i>Month</i>	<i>Units</i>
January	1000
February	1500
March	1900
April	1800
May	2000
June	2300

(a) Outline reasons for producing production targets.

2

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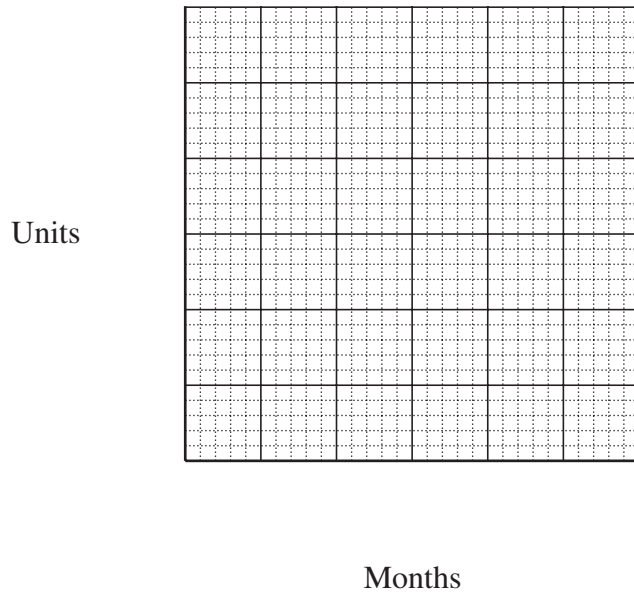
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Question 3 continues on page 10

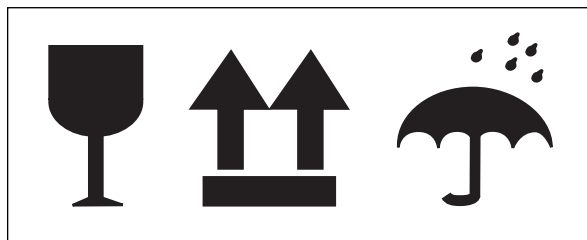
Question 3 (continued)

- (b) Draw a graph on the grid to represent IND-TECH's production targets. 3



- (c) The symbols shown are examples of signage commonly used on packaging. 4

Discuss the purpose of placing graphical images on packaging.



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Question 3 continues on page 11

Question 3 (continued)

- (d) The company is required to package 10 500 units for distribution.

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Complete the table indicating the cost of packaging these units. All prices are inclusive of GST.

Item	<i>Cost</i>	<i>Total cost</i>
Artwork	\$2100	\$2100
Materials	70c per unit	
Printing	35c per unit	
Labour	\$75 per 100 units	
	Total cost of packaging	
	Cost per unit	

Question 3 continues on page 12

Question 3 (continued)

- (e) Outline and assess the use of computer-developed techniques and hand-drawn techniques in the development of packaging artwork. 7

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End of Question 3

Industrial Technology Graphics Industries

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Student Number

Section II

40 marks

Attempt Questions 4–5

Allow about 35 minutes for this section

Answer the questions in the spaces provided.

Marks

Question 4 (20 marks)

(a) Why are drawings commonly drawn to scale?

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(b) Compare the main features of orthogonal and pictorial drawings.

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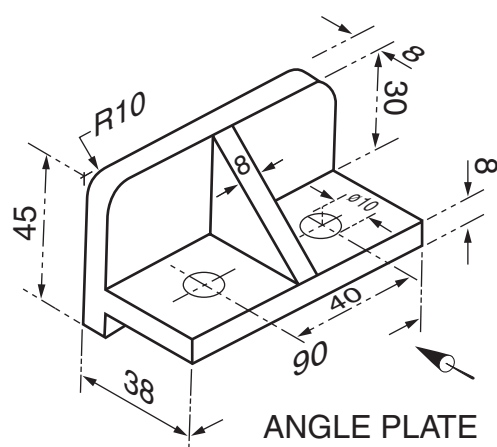
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Question 4 continues on page 14

Question 4 (continued)

(c) Sketch in third angle projection the angle plate shown below.

4



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Question 4 continues on page 15

Question 4 (continued)

(d) Discuss the use of perspective drawings in architectural design.

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Question 4 continues on page 16

Question 4 (continued)

- (e) An architectural design team uses a variety of drawing methods in its final presentations. **7**

Identify the different types of drawings that may be presented to the client and to the council and explain why they would be appropriate.

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End of Question 4

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Section II (continued)

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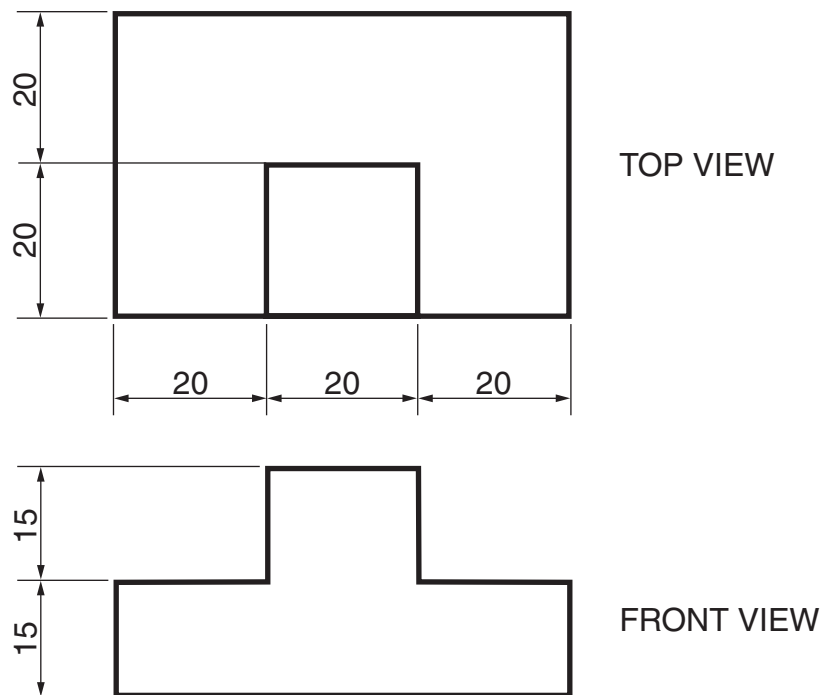
Student Number

Marks

Question 5 (20 marks)

(a) The small block shown has been drawn in orthogonal projection.

2



Sketch the block in isometric projection in the space below.



Question 5 continues on page 18

Question 5 (continued)

- (b) Outline differences between isometric and oblique projections. **3**

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- (c) (i) Sketch the symbol commonly used to indicate third angle projection. **1**

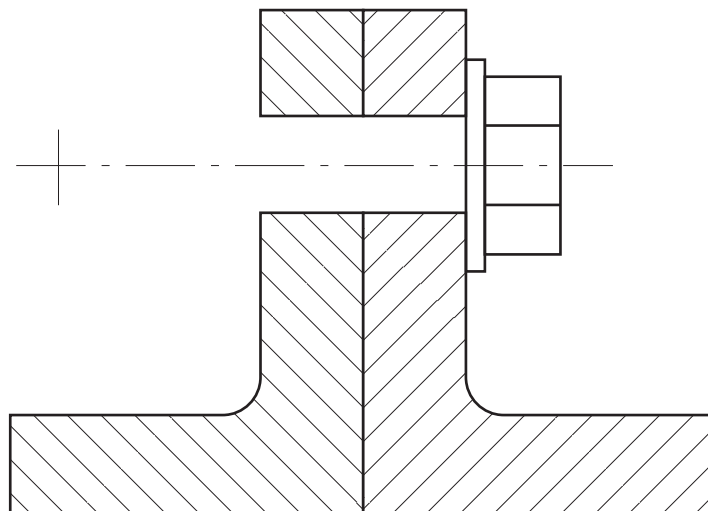
- (ii) Discuss the importance of using drawing symbols. **3**

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Question 5 continues on page 19

Question 5 (continued)

- (d) The incomplete full sectional view below shows 2 pieces of angle iron secured by a bolt, nut and washers. Complete the view to show all details. 4



Question 5 continues on page 20

Question 5 (continued)

- (e) Explain how recent advances in computer software packages have given architects, engineers and designers greater scope in the design, development and final presentation of their products. Use examples to illustrate your answer.

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