

Class:

Index Number:

Name:



海星天主教中学
HAI SING CATHOLIC SCHOOL

15 Pasir Ris Street 21, Singapore 518969 Tel: 6582 7864 Fax: 6582 2543

WEIGHTED ASSESSMENT 1 (2025)
SECONDARY THREE NORMAL ACADEMIC

DESIGN AND TECHNOLOGY

7055

04 Apr 25
40 minutes

Candidates answer on the Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your name, class and index number in the spaces at the top of this page.

Write in dark blue or black pen.

You may use a pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer all questions in the Question Paper.

The last page is intentionally left blank for additional sketches for any question. Do indicate question number clearly.

The total number of marks for this paper is **30**.

For Examiner's Use	
1	
2	
Total	/30

This document consists of **5** printed pages. (including this Cover Page)



HAI SING CATHOLIC SCHOOL

[Turn Over]

- 1 Fig. 1 shows a highchair that is used at a café.



Fig. 1

- (a) Explain **one** ergonomic consideration so that it is comfortable for users to use the chair.

[2]

- (b) Anthropometric data is required in the design of the chair in Fig. 1. Indicate **two** important anthropometric data that are needed on the figure given in Fig. 2.

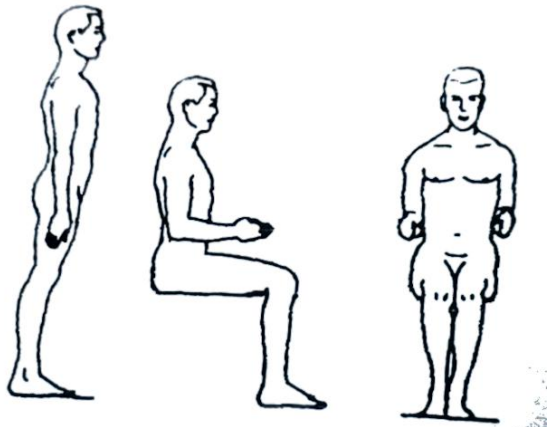


Fig. 2

[2]

- (c) The café would also like to have chairs designed specifically for children. Explain why product analysis can be a useful research method to help generate ideas when designing the children's chair.

[2]

(d) Sketch an idea for an animal themed highchair for children. The idea should:

- have a safety feature to secure the child on the highchair;
- be easy to move and keep when not in use.

Use Fig. 3.as an interface for your sketch. You may use the space on this page for more sketches.



Fig. 3

- 2 (a) Complete the table to show a suitable material and electrical property for each electrical use.

Material	Electrical Property		Electrical Use
_____	_____	allows electricity to flow through easily.	wires
_____	_____	electricity cannot flow through easily.	cable covering

[4]

- (b) Complete the table below. The first one has been done for you.

Name	Component	Circuit Symbol
Battery		
	 A	
	 B	
	 C	

[6]

- (c) Using notes and sketches, describe one way of identifying the cathode (negative) leg of component A in question 2(b).

[2]

- (d) Component A in Question 2(b), is an example of a polarized component. Name one other polarized component.

[1]

- (e) Fig. 4 shows a light sensing circuit.

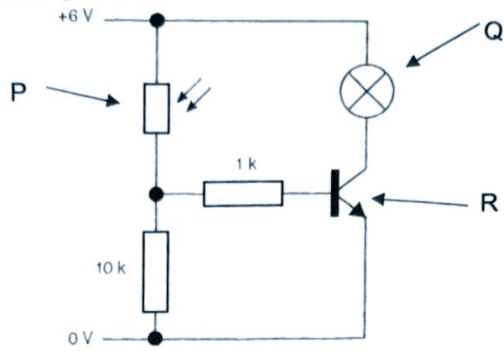


Fig. 4

- (i) Name component P and R

[2]

- (ii) Redraw component C and label the three legs.

[3]

End of Paper