

RECURSO LIMITED

HONG KONG DIPLOMA OF SECONDARY EDUCATION MOCK EXAMINATION 2026

DESIGN AND APPLIED TECHNOLOGY PAPER 2E

Visualisation and CAD Modelling

Question-Answer Book

11:15 am - 1:15 pm (2 hours for Paper 2)

This paper must be answered in English

INSTRUCTIONS

- (1) After the announcement of the start of the examination, you should first write your Candidate Number in the space provided on Page 1 and stick barcode labels in the spaces provided on Pages 1 and 5.
- (2) Refer to the General Instructions on Papers 2A - 2D.
- (3) Answer any **TWO** questions from Q.13 - Q.15.
- (4) Write your answers in the spaces provided in this Question-Answer Book. Do not write in the margins. Answers written in the margins will not be marked.
- (5) Supplementary answer sheets will be supplied on request. Use separate supplementary answer sheets for Paper 2A – 2D and Paper 2E. Write your Candidate Number, mark the question number box and stick a barcode label on each sheet, and fasten them with string **INSIDE** the relevant Answer Book/Question-Answer Book.
- (6) No extra time will be given to candidates for sticking on the barcode labels or filling in the question number boxes after the 'Time is up' announcement.
- (7) Unless otherwise stated:
 - (a) all dimensions given are in millimetres (mm);
 - (b) all solutions must be in full size;
 - (c) all construction lines must be left in each solution.
- (8) Use your own judgment for any dimensions not given.

©迴享有限公司 共享創意授權
Recurso Limited 2025
CC BY-NC 4.0

Please stick the barcode label here.

Candidate Number

撥款資助
FUNDED BY



創新計劃項目
INNOVATIVE PROGRAMME

IMPACT
INNOVATION
LAB 創效實現室

協創機構
INTERMEDIARY



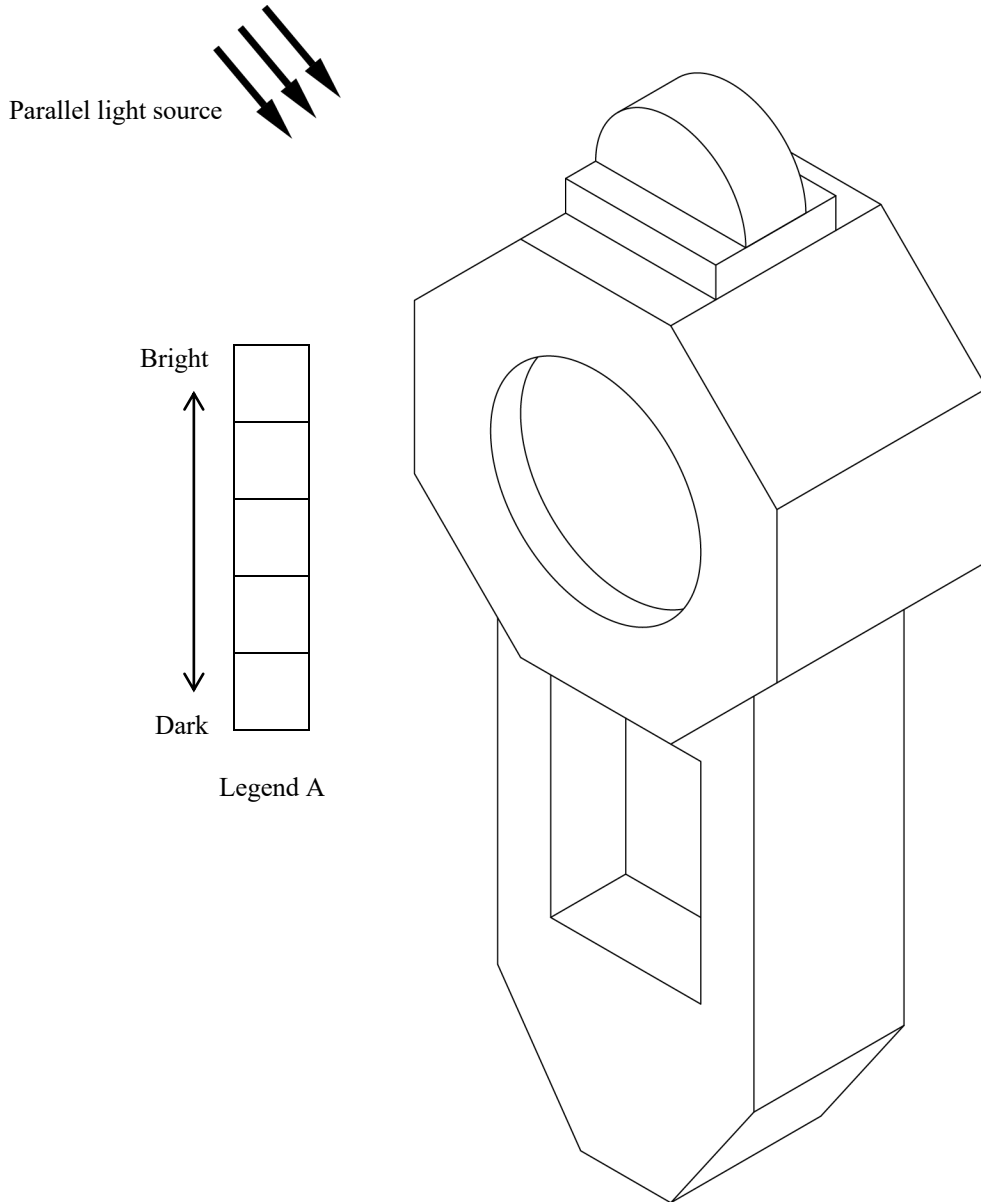
印刷贊助
PRINTING SPONSOR

FINGERPRINT
Your Print Solution Partner



* A 1 8 0 E 0 2 E *

13. (a) The figure below shows a pictorial drawing of the wall clock housing prototype that is made of a single-coloured opaque material.
- (i) Use a warm color to set the level of darkness in the boxes of Legend A; (2 marks)
 - (ii) With the completed Legend A and the parallel light source provided, use tone shading techniques to enhance the three-dimensional effect of the wall clock housing prototype. (8 marks)



Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

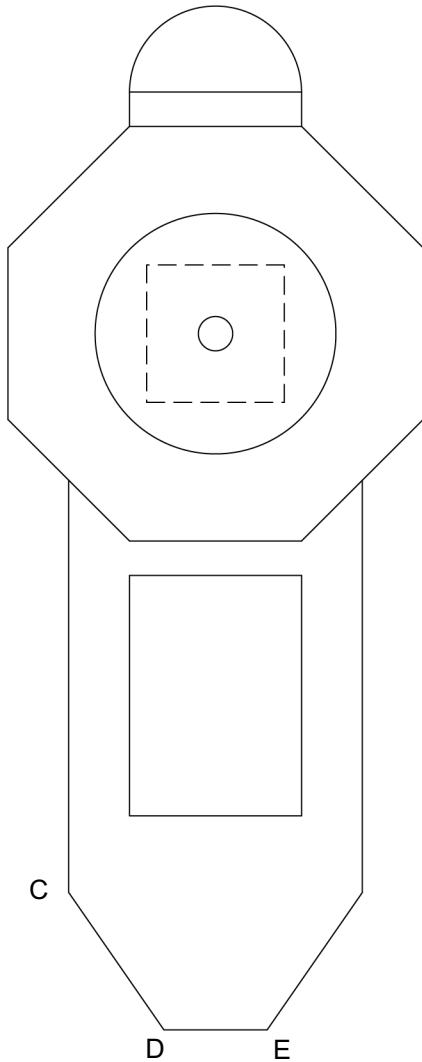
- (b) Explain one advantage of using 3D printing technology to produce prototypes compared with traditional prototyping methods. (2 marks)

Answers written in the margins will not be marked.

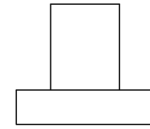
13. (c) In the space provided below, with the aid of drawing instruments, use first angle projection to complete:

(i) The end elevation and plan of the wall clock housing, including hidden details; (10 marks)

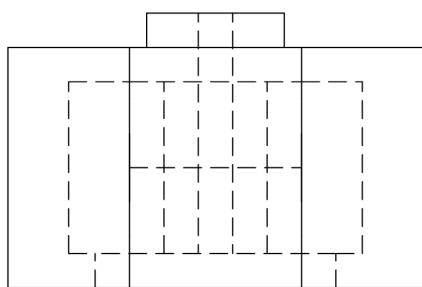
(ii) In the front view, apply dimensioning rules to mark the angle of $\angle CDE$. The angle of $\angle CDE$ is 125° . (3 marks)



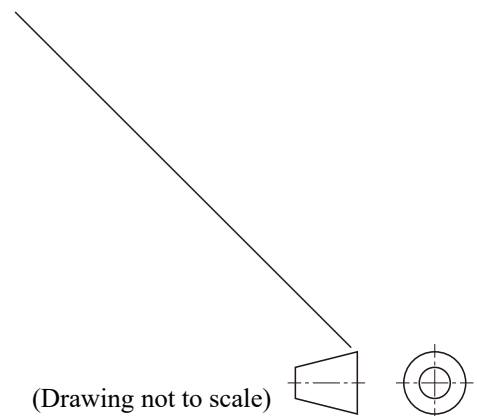
FRONT ELEVATION



END ELEVATION



PLAN



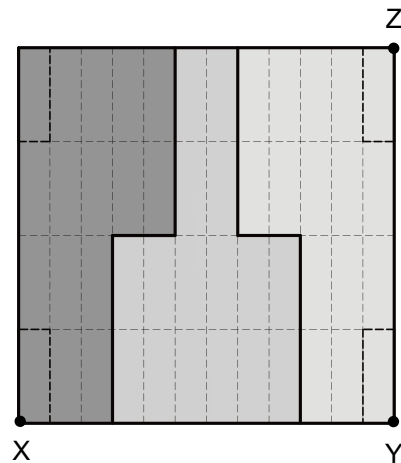
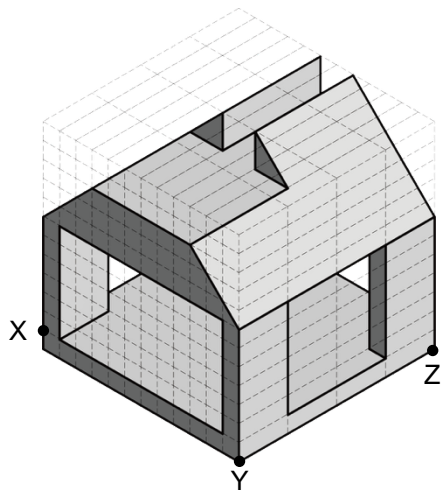
(Drawing not to scale)

Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

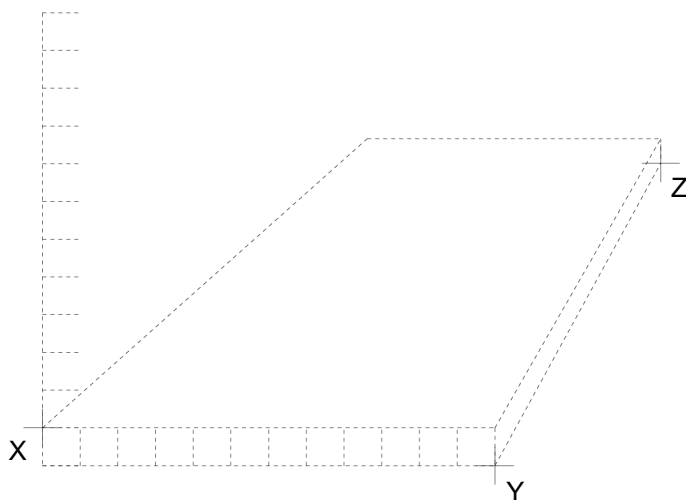
Answers written in the margins will not be marked.

14. (a) The figures below show the pictorial drawing and the plan of a storage rack.



On the grid lines and spaces of the perspective drawing below:

- (i) Indicate the Vanishing Point (VP); (1 mark)
- (ii) Using appropriate drawing instruments and methods, complete the one-point perspective drawing of the storage rack; (8 marks)
- (iii) Apply thick-and-thin lines technique to strengthen the outline of the storage rack. (2 marks)



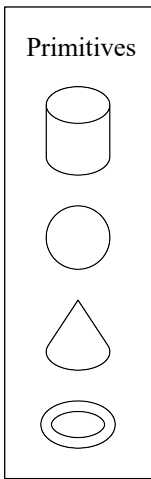
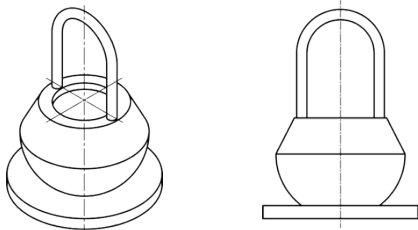
Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

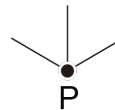
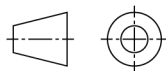
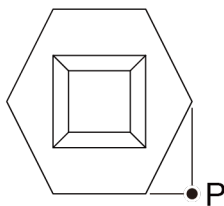
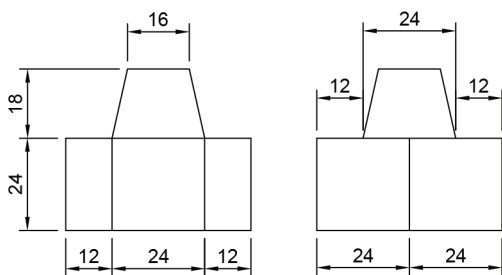
Answers written in the margins will not be marked.

Please stick the barcode label here.

14. (b) The figure below shows two views of a candle holder prototype. In the space provided below, using the following primitives and adopting the Primitives Approach (Boolean operation), use annotated sketches to construct the candle holder prototype. (6 marks)



- (c) The figure below shows three views of a candle. In the space provided below, use P as the lowest point, produce an isometric drawing according to the dimensions provided. (8 marks)

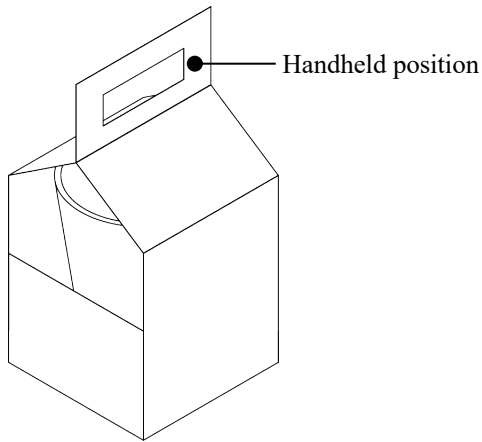


Answers written in the margins will not be marked.

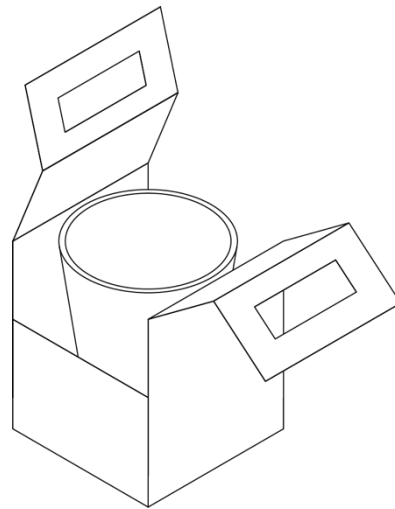
Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

15. (a) (i) The figures below show a pictorial view of a coffee cup carrier box in both folded and opened states.



Carrier box in folded states

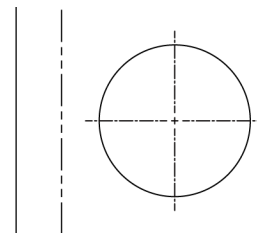
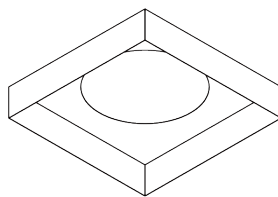
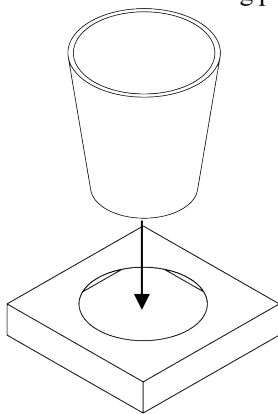


Carrier box in opened states

The figure below shows the incomplete surface development of the carrier box. Using appropriate drawing instruments and methods, draw all the remaining parts and flaps of the surface development. (Ignore the thickness of the material.) (7 marks)



(ii) The figures below show two pictorial views of a coffee cup holder from two directions and its incomplete surface development. Using appropriate drawing instruments and methods, draw all the remaining parts and flaps of the surface development. (Ignore the thickness of the material.) (4 marks)



Cup holder (View from the top) Cup holder (View from the bottom)

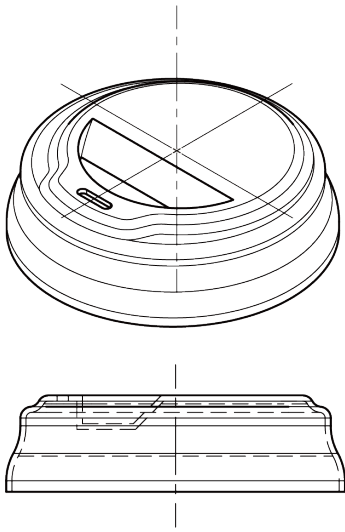
Answers written in the margins will not be marked.

Answers written in the margins will not be marked.

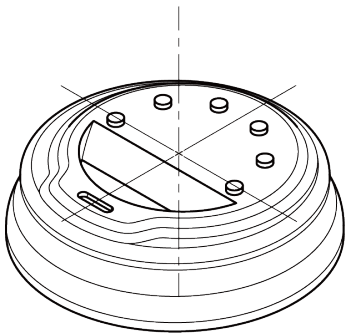
Answers written in the margins will not be marked.

15. (b) Using annotated sketches and adopting Features Approach (Feature-based modelling):

(i) In the spaces provided below, show the construction step of the cup lid. (8 marks)



(ii) Use the least number of steps to add 6 round bumps on the cup lid in Q(b)(i). (4 marks)



(c) Compared with the Primitives Approach (Boolean operation), the Features Approach (Feature-based modelling) is more suitable for constructing some features in Q15(b) cup lid models. State **two** examples of such features. (2 marks)

①

②

END OF PAPER

Answers written in the margins will not be marked.

Do not write on this page.

Answers written on this page will not be marked.