

3.21.2 Drawing and Design Paper 2 (449/2)

DESIGN PROBLEM (40 marks)

Kiosk owners have challenges when displaying groceries for sale, due to insufficient space inside the kiosk. This makes it difficult for the customers to select the items before buying.

Design a stand with an adjustable tray to be used outside a kiosk, considering that it should:

1. collapse onto the stand during storage;
2. have provision for inclination to an appropriate angle to the stand for display;
3. have provision for tilting to a maximum angle such that it is parallel to the ground;
4. have adjustable height;
5. be movable with ease.

REQUIREMENTS

- (a) Make freehand sketches of **two** possible designs. (6 marks)
- (b) Select **one** of the designs in (a) above and make a refined labelled pictorial sketch. (10 marks)
- (c) Make detailed sketches to show each of the considerations 1, 2 and 3 above. (12 marks)
- (d) Draw detailed exploded views of the mechanism used in considerations 2 and 3 above. (8 marks)
- (e) (i) Name **two** materials used.
- (ii) Name **two** methods of joining used in the design. (4 marks)