

3.21.2 Drawing and Design Paper 2 (449/2)

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DESIGN PROBLEM

A physically challenged person on wheelchair usually requires a special working table to perform different tasks. Design a suitable table for a challenged person considering the following:

1. It should be easily moved from one position to another.
2. It should be adjustable to comfortable heights.
3. The working top should be adjustable to any desired angle of inclination.
4. The table should have an extended top that is collapsable.
5. The table should have provision for placement of light stationery like pencils, pens, pins, erasers and rulers.

REQUIREMENTS

- (a) Make free-hand sketches of two possible solutions for your design. (6 marks)
- (b) Select one of the designs in (a) above and make a refined labelled pictorial sketch. (13 marks)
- (c) Make detailed sketches of the mechanism to allow for each of the considerations 1-5 above. (16 marks)
- (d) List two materials to be used and state one reason for the choice of each. (2 marks)
- (e) State three methods of joining the parts and state where each is used. (3 marks)