449/2 DRAWING AND DESIGN TIME:2 ½ Hours

KAMDARA JET - 2016

Instructions to candidates

- a) You should have following for this examination:4 sheets of drawing paper size A3;Drawing instruments;
- b) This paper has ONE COMPULSORY question.
- c) This paper is to be issued to the candidates 30 minutes before the examination starts.
- d) Candidates are advised to spend this time understanding the design problem and planning the work on one of the drawing papers printed.
- e) This paper consists of 2 printed pages.
- f) Candidates should check the question paper to ascertain that both pages are printed as indicated and that no questions are missing.
- g) Candidates should answer the questions in English.

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DESIGN PROBLEM

In our homes, there is always a problem of sorting out dirty clothes before cleaning them. Different clothes should be put and washed in different batches. Design a temporary storage device to be used in sorting different types of cloths before washing them. Design the device considering the following:

- 1. The device should have different compartments to hold the different types of cloths.
- 2. It should easily be moved from one position to another.
- 3. The top should be used for ironing clothes on.
- 4. It can be adjusted to the desired height for ease during ironing of clothes.
- 5. It should have a suitable breaking system.

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 labeled pictorial sketch.

(14 marks)

c) Make detailed sketches of the mechanisms to allow for each of the considerations 1-5 above. (15 marks)

d) List two materials to be used and state one reason for the choice of each in the design. (2 marks)

e) State three methods of joining the parts and state where each is used. (3 marks)

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