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**DRAWING AND DESIGN**

**PAPER 2**

**JULY/AUGUST 2013**

**TIME: 2½ HOURS**

**KIRINYAGA CENTRAL DISTRICT JOINT EXAMINATION - 2013**

**Kenya Certificate of Secondary Education**

**DRAWING AND DESIGN**

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**INSTRUCTIONS TO THE CANDIDATES:**

1. This paper has **ONE COMPILSORY** question.
2. The paper is to be issued to the candidates 30 minutes before the exam starts.
3. Candidates are advised to spend this time understanding the design problem and planning the work.

**FOR EXAMINER'S USE ONLY:**

QUESTION	SECTION	MAXIMUM SCORE	CANDIDATES SCORE
<b>DESIGN PROBLEM</b>	a	6	
	b (i)	11	
	b (ii)	16	
	c (i)	4	
	(ii)	3	
<b>TOTAL SCORE</b>			

### **DESIGN PROBLEM: (40 MARKS)**

Design a 3 leg painter's ladder.

Considering that:

1. It should have a flat top for the painter to place the paints.
2. It should be possible to raise and lower the height to the convenient of the painter.
3. When not in use it should be stored in a narrow space.
4. At least two different materials to be used in the design.

### **REQUIREMENTS:**

- (a) Make rough sketches of two possible designs of the finished ladder. (6mks)
- (b)
  - (i) Make a pictorial sketch of the selected design. (11mks)
  - (ii) Sketch the design details of the mechanisms to allow for consideration 2 and 3 above. (16mks)
- (c)
  - (i) List materials selected for the design and give a reason for the choice of each. (4mks)
  - (ii) State the method used for joining the parts. (3mks)