

449/2

DRAWING AND DESIGN

(PRACTICAL)

PAPER 2

TIME: 2 ½ HOURS

NYAHOKAKIRA CLUSTER TWO 2024

Kenya Certificate of Secondary Education (K.C.S.E.) 2024

INSTRUCTIONS TO CANDIDATES:

You should have the following materials for this examination:

- 4 sheets of drawing paper size A3.*
- Drawing equipment*

*This paper contains **ONE COMPULSORY** question. This is to be issued to the candidates 30 minutes before the examination starts. The candidate is advised to spend this time understanding the design problem and planning the work on one of the drawing papers provided*

This paper consists of 2 printed pages Candidates should check the question paper to ensure that all the printed pages are printed as indicated and no questions are missing.

DESIGN PROBLEM (40 MARKS)

With the increase in use of desk top computers, schools have a challenge of effective utilization of space both as classrooms and computer laboratories. This has led to high maintenance costs, caused by frequent movements of the equipment.

Design a computer desk considering the following:

- i. It should accommodate the monitor, central processing unit, keyboard and the mouse;
- ii. It should be used for other learning activities;
- iii. There should be minimal movement of the components in (i) above;
- iv. The components should be safely stored when not in use.

REQUIREMENTS

- a) Make freehand sketches of TWO possible designs. (8 marks)
- b) Select ONE of the designs in (a) above and make a refined labeled pictorial sketch. (12 marks)
- c) Draw detailed exploded views of the mechanisms in considerations (iii) and (iv) above. (12 marks)
- d) List four different materials used and state ONE reason for the choice of each. (6 marks)
- e) Give FOUR possible methods of finishing the desk. (2 marks)