

449/2
DRAWING AND DESIGN
Paper 2
(PRACTICAL)
DEC, 2021
2 ½ hours
BUNAMFAN EXAM, 2021
Form four

Instructions to candidates

- (a) You should have the 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) The candidates are advised to spend this time understanding the design problem and Planning the work on one of the drawing papers provided.
- (e) This paper consists of 2 printed pages.
- (f) Candidates should check the question paper to ascertain that all the pages are printed As indicated and that no questions are missing.
- (g) Candidates should answer the questions in English.

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 uses for other learning activities;
- (iii) There should be minimal movement of 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)