Name:
ADM No: $\qquad$ .Class: $\qquad$
488/2
DRAWING AND DESIGN

## PAPER 2

AUGUST-SEPTEMBER 2022
$21 / 2$ hours

## MECS CLUSTER JOINT EVALUATION

## FORM FOUR END OF TERM TWO EXAMINATION 2022

## DRAWING AND DESIGN

## INSTRUCTIONS TO CANDIDATES

1. Write your name, index number and class in the spaces provided above.
2. The paper contains 2 PRINTED pages make sure all PAGES ARE PRINTED and NONE IS MISSING
3. Answer ALL the questions
4. All the answers and working must be written on the question paper in the spaces provided below each question or in A3 paper provided.
5. Label every drawing drawn on A3 paper provided

For examiner use only

| $A$ | $B$ | $C$ | $D$ | $E S$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $e^{\gamma}$ |  |  |

GRAND TOTAL


## DESIGN PROBLEM (40 marks)

A physically challenged patient with partial walking difficulties requires a device that can assist in walking. The device can also be used as a seat when necessary.

Design the device considering the following:

1. It should be used to assist in walking with ease.
2. It can be used as a seat
3. It can be adjusted to desired height
4. It can be folded and stored when not in use
5. It should have a suitable braking system.

## Requirements

a. Make freehand sketches of two possible solutions for your design
b. Select one of the design in (a) above and make acrefined labelled pictorial sketch
c. Make detailed sketches for the mechanisms to allow for each of the considerations above
d. List three materials used and state one reason for the choice of each.
e. State two methods of joining the parts and state where each is used


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