



**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME: BSC ABE 2
BSC LWM. III (T)**

COURSE CODE: ABE 202

TITLE OF PAPER: ENGINEERING DRAWING

TIME ALLOWED: TWO (2) HOURS

SPECIAL MATERIAL REQUIRED: DRAWING EQUIPMENT

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY TWO
OTHER QUESTIONS.**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN
GRANTED BY THE CHIEF INVIGILATOR**

SECTION I COMPULSORY**QUESTION 1**

- a) Name two styles of lettering commonly used in drawing. How do the two styles differ from each other? [6 marks]
- b) What are the major objectives of scales in drawing? [4 marks]
List the types of scales and give example of a value of such a scale. [8 marks]
- c) Critic any six items on the drawing in Figure 1 [12 marks]
- d) What is the main difference between first angle and third angle projection in engineering drawing? [10 marks]

SECTION II ANSWER ANY TWO QUESTIONS**QUESTION 2**

- a) Name any five types of sectional views used in drawing [10 marks]
- a) Name any five conditions in which thin continuous lines are used. [10 marks]
- b) Figure 2 shows two views of an object. Draw an isometric view of the object. [10 marks]

QUESTION 3

- a) Distinguish between dimension lines and extension lines as used in sizing of objects in drawing. [10 marks]
- b) Distinguish between isometric and orthographic projection [10 marks]
- c) Auxiliary views are commonly used in engineering drawing;
- What is a primary auxiliary view? [4 marks]
 - Name any three primary auxiliary views commonly used. [6 marks]

QUESTION 4

- a) Using a pencil, pair of compasses and a ruler construct the following:
- With centre at O and radius of 4 cm draw a circle. Draw a horizontal line OM. Construct angle $MON = 120^\circ$. Using a radius of 9 cm, draw arcs from M and N to meet at P.
- Name the quadrilateral that has been formed. [10 marks]
- b) A length of 5.2 cm is measured on an architectural drawing of a house plan for Mr. Mamba. The actual measurement of the house is 20.8 m. Calculate the scale used for drawing the plan. [10 marks]
- c) Name any five types of sectional views used in drawings. [10 marks]

Candidate's Number _____

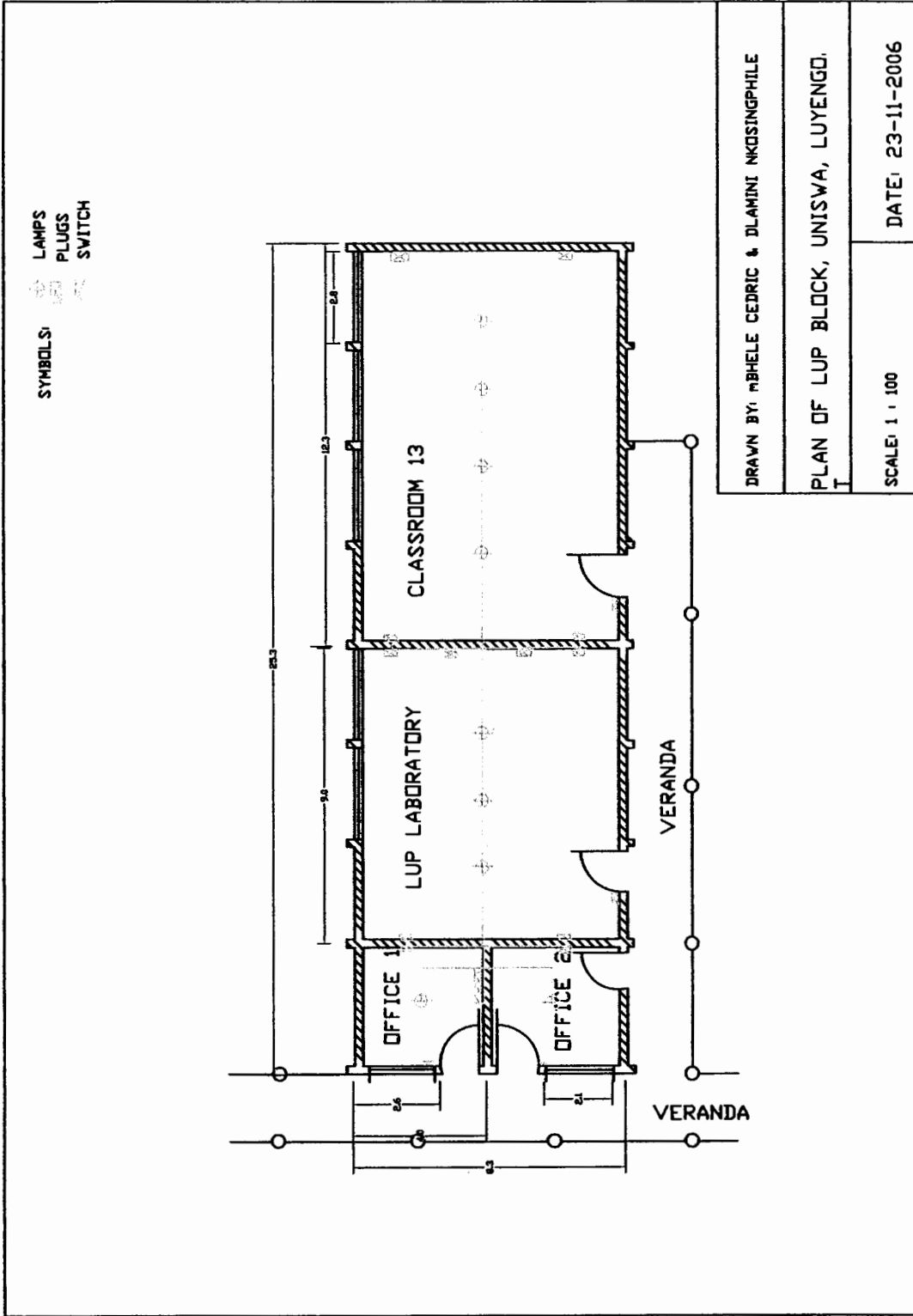


Figure 1 Plan view of LUP Laboratory

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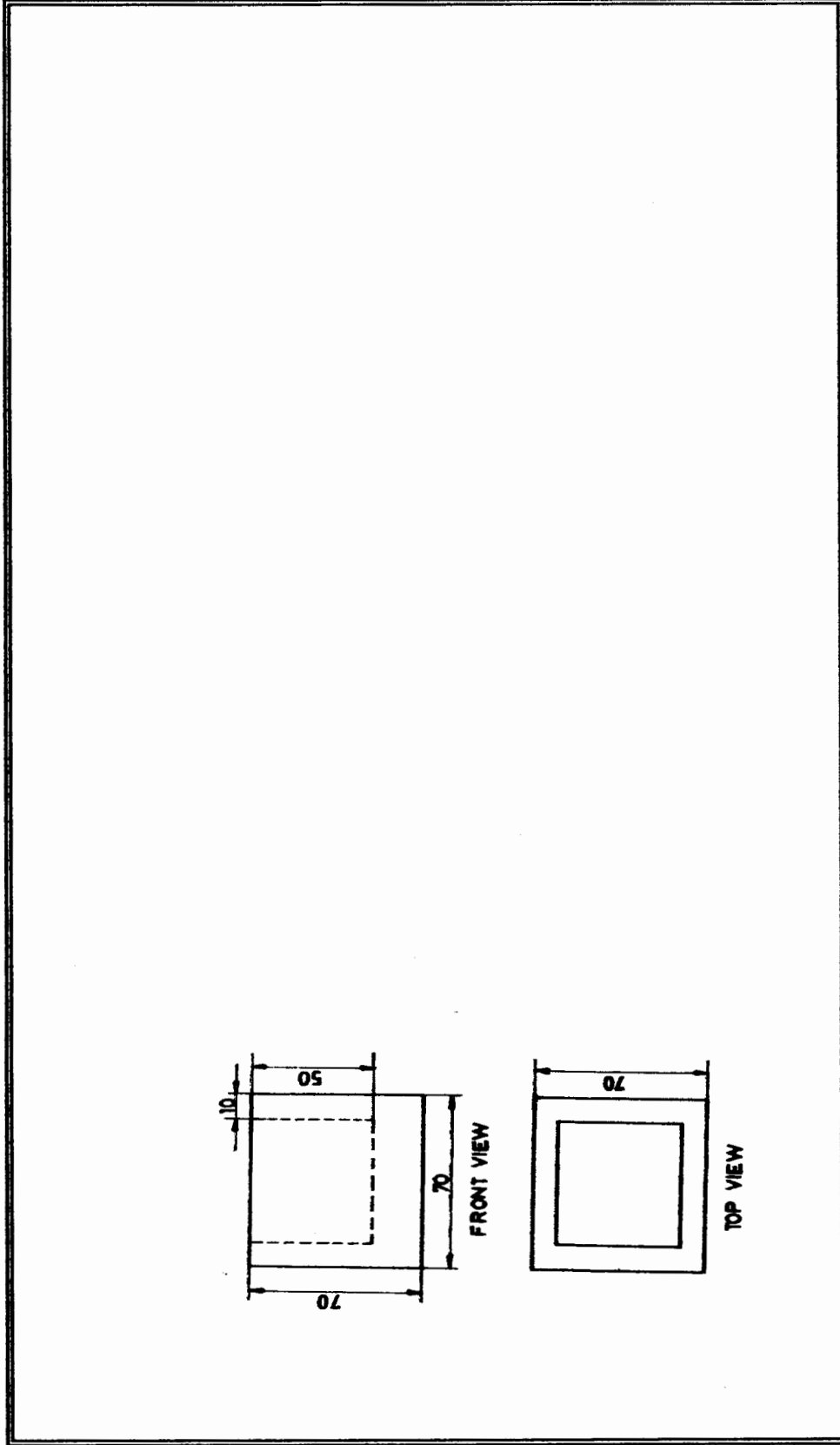


Figure 2 Orthographic projection of an object.