

SHEET 1

LABASA SANGAM (SKM) COLLEGE

SUPPLEMENTARY WORKSHEET

BASIC TECHNOLOGY – YEAR: 10 - 2021

NAME: \_\_\_\_\_  
Year: \_\_\_\_\_

MULTIPLE CHOICE

[10 MARKS]

1. Hazards and unsafe working conditions in the workshop should

- A. be reported after class
- B. be reported immediately
- C. be left for the supervisor to attend
- D. not be reported if no accidents has taken place

2. Which of the following symbols is used to represent a **wall mounted lamp**?

- A.  B.  C.  D. 

3. The figure shown on the right would represent a

- A. Pictorial marks
- B. Letter marks
- C. Combination mark
- D. Mascot logo



4. A circle will appear on an isometric drawing as a(n)

- A. ellipse
- B. egg
- C. circle
- D. semi-circle

5. The principle of design used by the designer to draw attention to an area or subject is known as

- A. unity
- B. variety
- C. rhythm
- D. emphasis

6. Which one of the following characteristics is widely regarded as being an important aspect of sustainable development?

- A. Inter-generational equity
- B. Increasing consumption expenditure
- C. Intra-generational inequity
- D. Increased levels of saving

7. The diagram shown below is drawn in

- A. one point perspective
- B. isometric
- C. two point perspective
- D. oblique

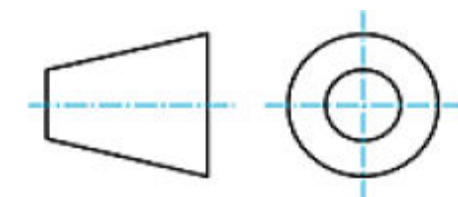


8. The **main** disadvantage of using cavalier oblique projection is that the diagram

- A. looks distorted
- B. is difficult to understand
- C. is drawn using a special scale
- D. shows only half of the width on the receding side

9. The symbol shown below is of a

- A. first angle orthographic projection
- B. second angle orthographic projection
- C. third angle orthographic projection
- D. Fourth angle orthographic projection



10. The diagram on the right shows an example of

- A. traditional farming
- B. traditional architecture
- C. traditional navigation
- D. traditional recycling



**GENERAL KNOWLEDGE**

**(10 marks)**

**Part A Matching (5 marks)**

Mach the terms in **list A** with the correct descriptions in **list B**. Write the **LETTER** representing the term in the box beside the matching description. Do not write a **letter twice**.

List A	
A. Hand tool safety	B. Bench hook
C. Investigation	D. Orthographic
E. Human error	F. Safe working conditions
G. Varnish	H. Brainstorming

List B		ANSWER
1	Is a cause of most injuries in a workshop	
2	Uncongested working area	
3	Collecting information	
4	Shows plan, front elevation and end elevation of an object	
5	Stimulates further idea	

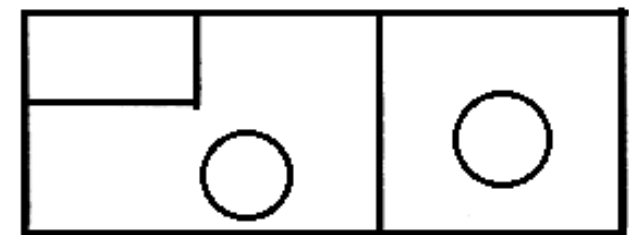
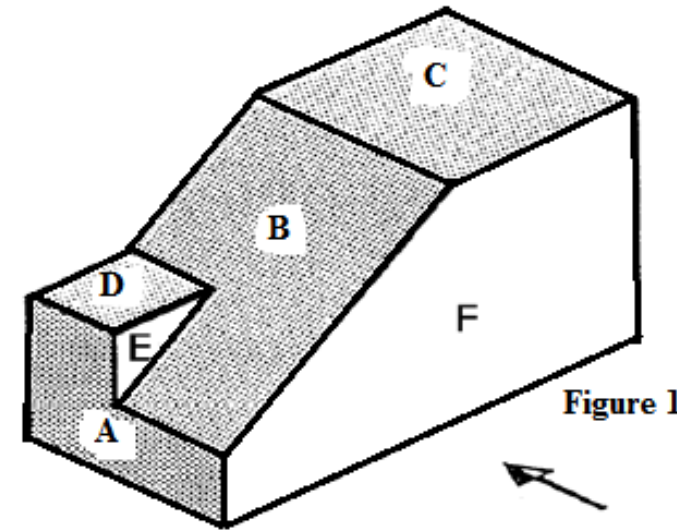
**PART B**

**SURFACE LABELING**

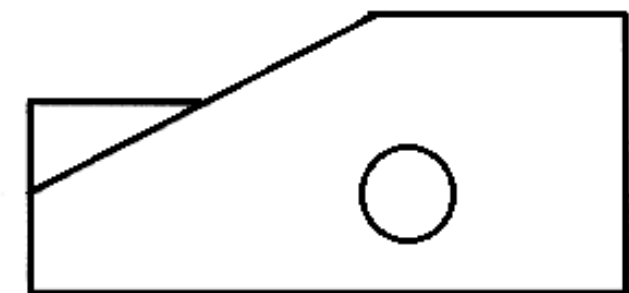
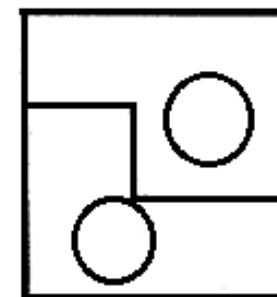
**(5 marks)**

The faces of the isometric view of a given multi-shaped block are indicated by letters in **Figure 1**.

Write the correct letters in the circles in **Figure 2** to match their corresponding faces in **Figure 1**.  
(5 marks)



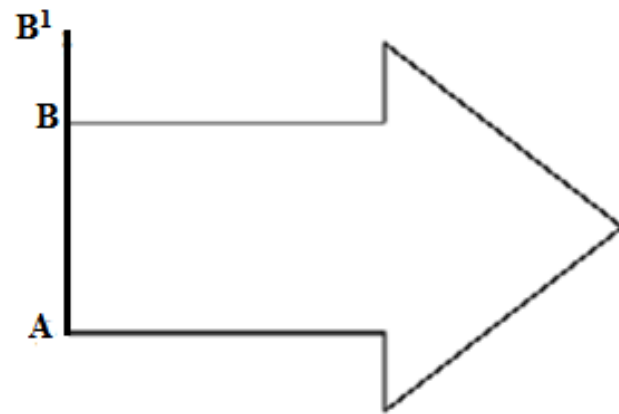
**Figure 2**



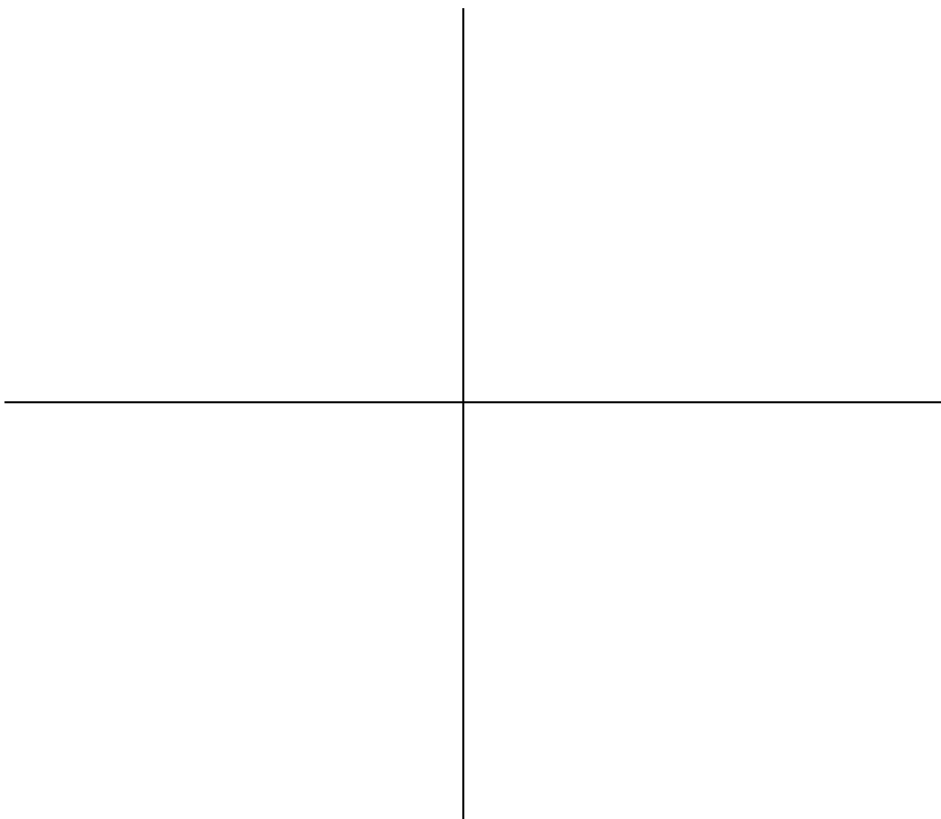
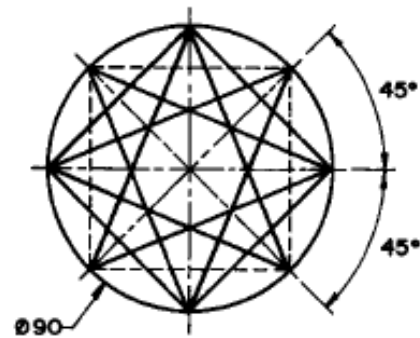
**GEOMETRICAL CONSTRUCTION**

[12 marks]

- (a) The figure shows a direction arrow. Draw a similar arrow with height **AB** increased to **AB<sup>1</sup>**.  
(3 marks)



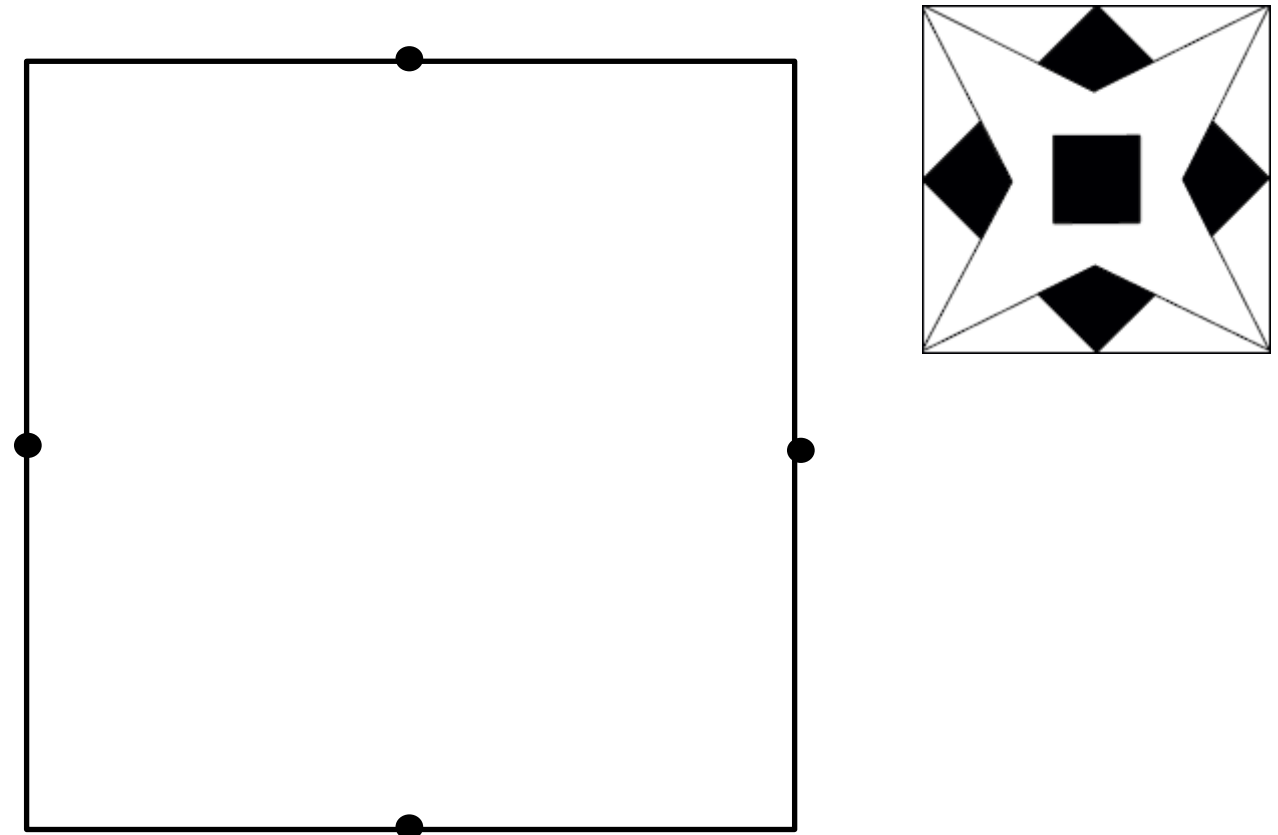
- (b) Given on the right is a pattern. Redraw the pattern to full size on the center line provided using the measurements given in the pattern.  
(3 marks)



- (C) **Given:** A picture of a design pattern below.

**Required:** Redraw the design pattern inside the circle given below.

(3 marks)

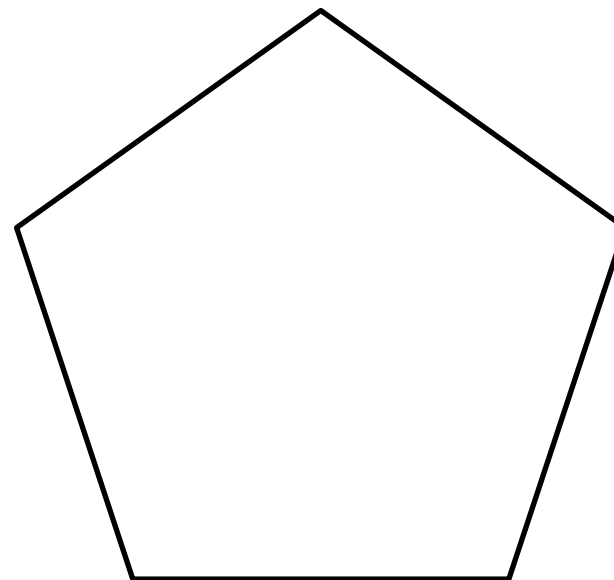


**ENLARGEMENT AND REDUCTION**

- (d) Given below is a polygon.

Reduce the overall dimensions of the polygon to a scale of 4:5 starting at A.

[3 marks]



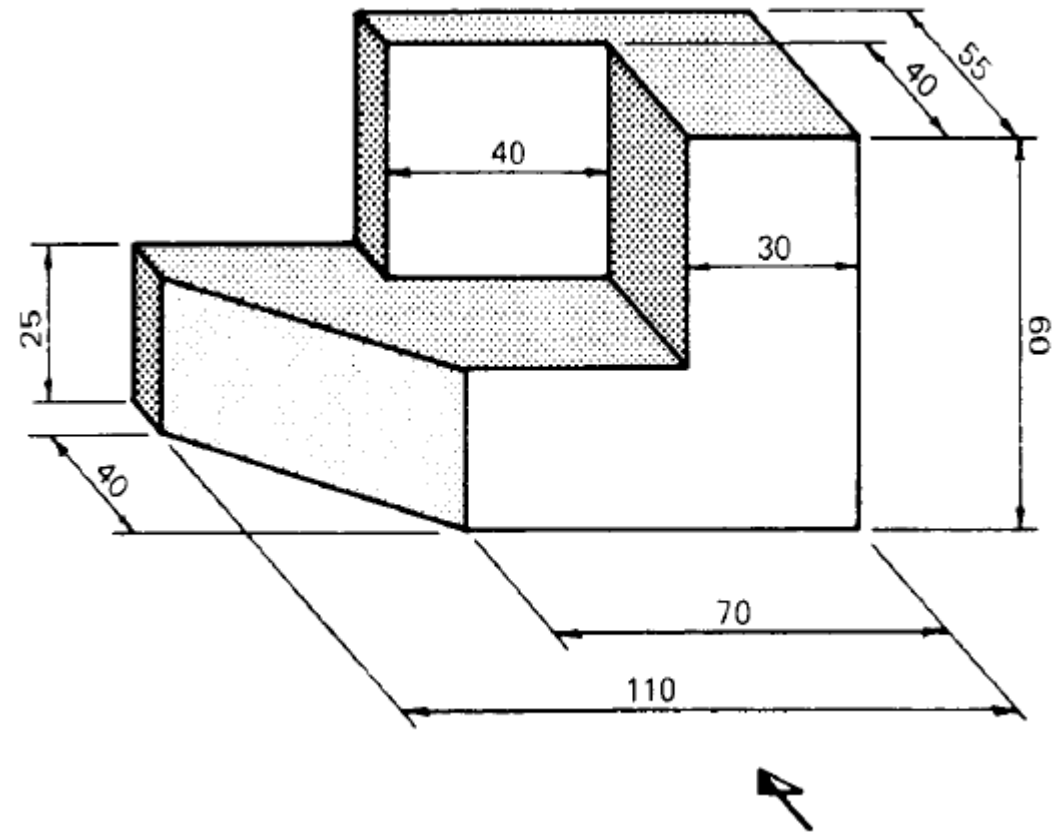


**ORTHOGRAPHIC DRAWING (10 marks)**

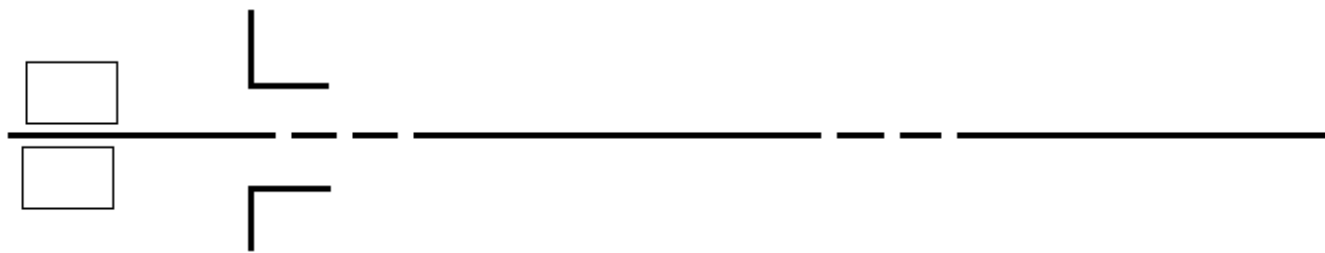
**Given:** A simple **shaped block** drawn in oblique, the reference line and the starting corners

**Required:** By using the measurements provided in the oblique drawing, answer the following questions:

- i. Label all the visible faces of the **shaped block** on the oblique drawing with **letters**. (2 marks)
- ii. Draw the Plan and Elevation of the **shaped block** in 1<sup>st</sup> Angle Orthographic Projection. (7 marks)
- iii. Label the reference line correctly using **VP** and **HP**. (1 mark)



All measurements in millimeters



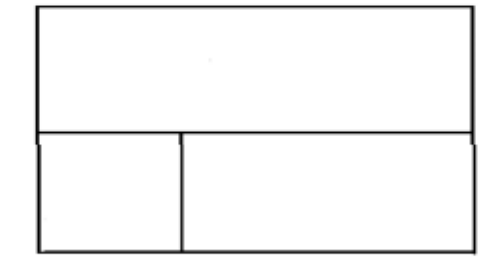
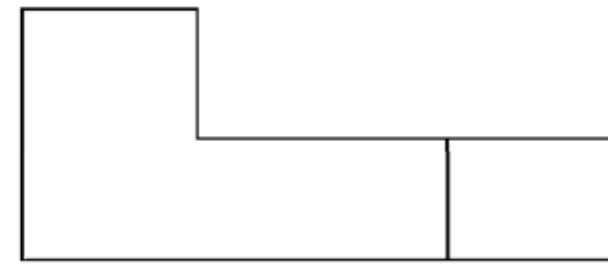
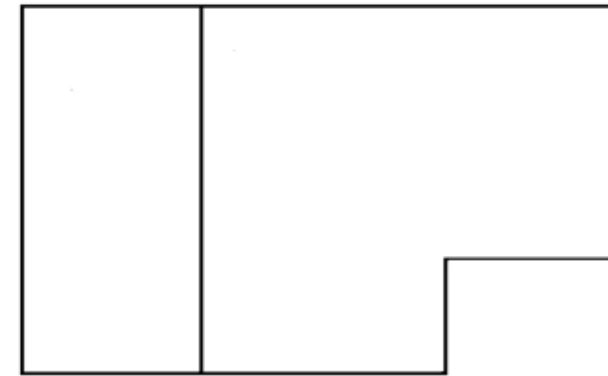
**ISOMETRIC DRAWING**

**(10 marks)**

**Given:** A simple **shaped block** drawn in 3<sup>rd</sup> angle orthographic projection and the starting point **A**.

**Required:** By taking measurements directly from the orthographic drawing, answer the following questions given below:

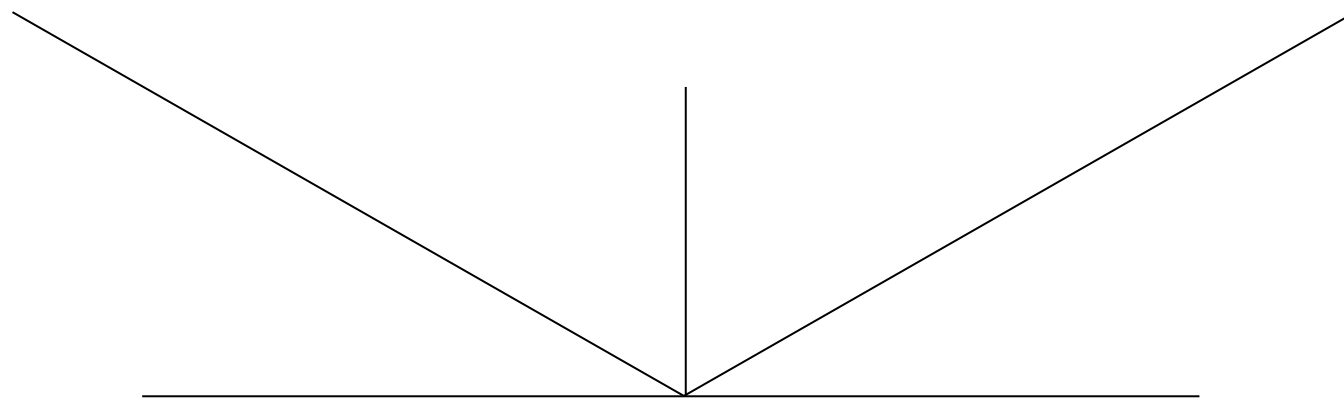
- i. Label all the visible faces of the **Shaped Block** on the orthographic drawing with **letters**. *(2 marks)*
- ii. Draw the **shaped block** in isometric drawing using the starting point **A** given below. *(8 marks)*



A

A

A



A

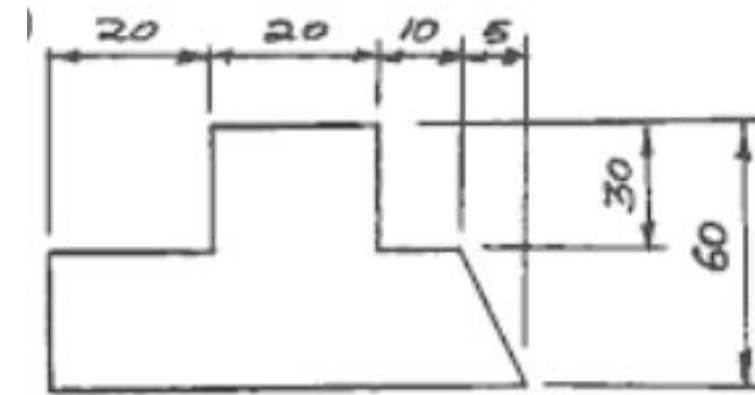
**OBLIQUE DRAWING**

(10 marks)

**Given:** A simple **shaped block** drawn in 1<sup>st</sup> angle orthographic projection and the starting point **A**.

**Required:** By taking measurements directly from the orthographic drawing, answer the following questions given below:

- i. Label all the visible faces of the **Shaped Block** on the orthographic drawing with **letters**. (2 marks)
- ii. Draw the **shaped block** in oblique drawing using the starting point **A** given below. (8 marks)



A

