

SHEET 1

PENANG SANGAM HIGH SCHOOL
YEAR 10
BASIC TECHNOLOGY

WORKSHEET – 5

QUESTION 1

PART A

The faces on 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**.

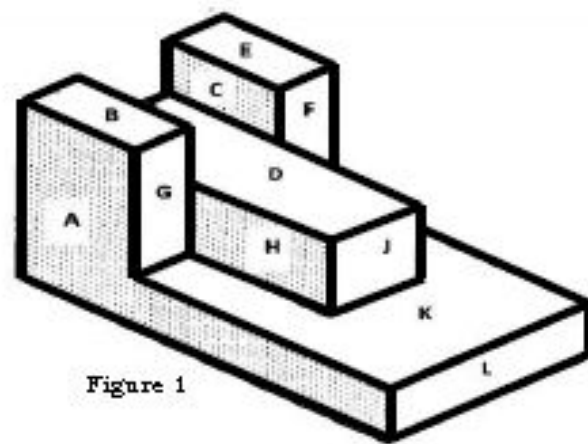


Figure 1

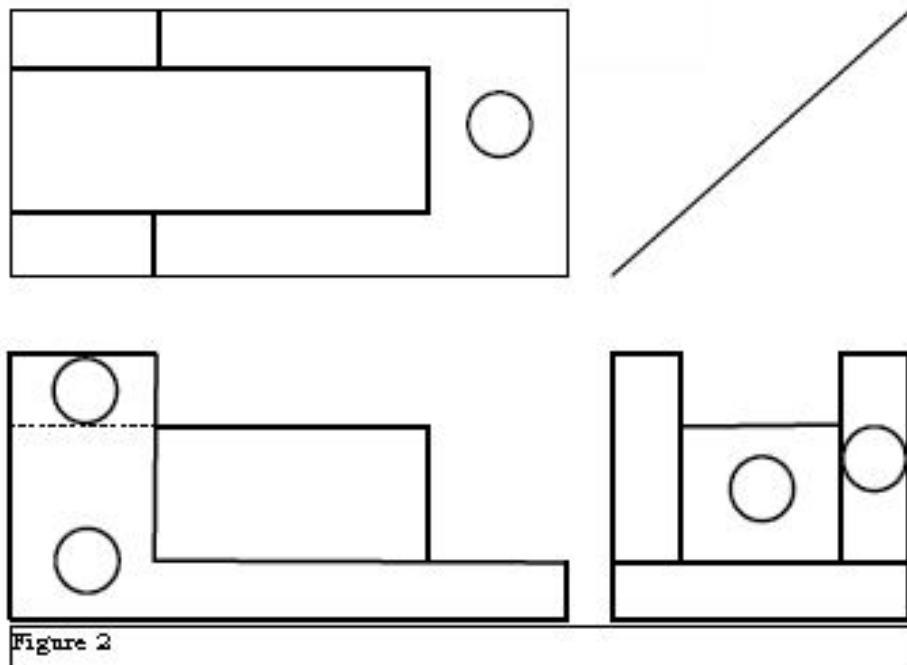
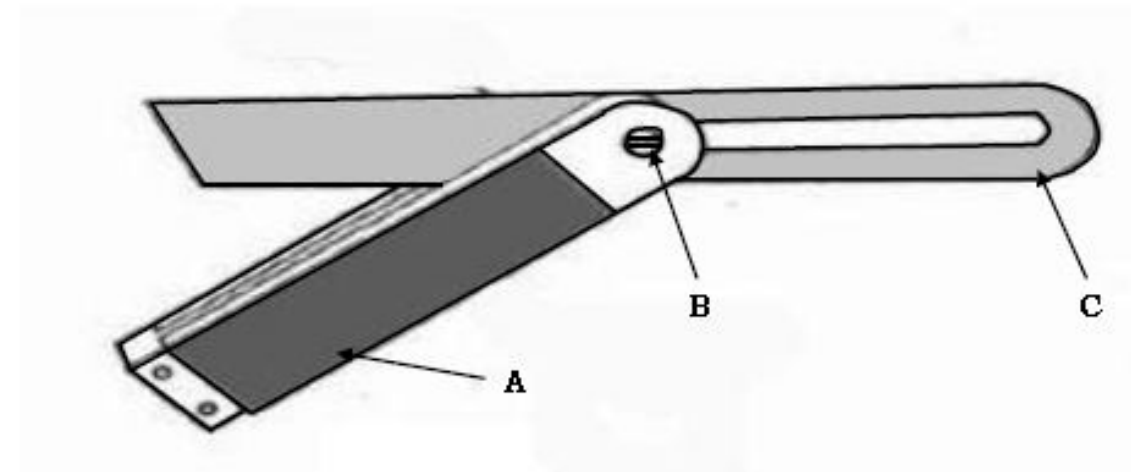
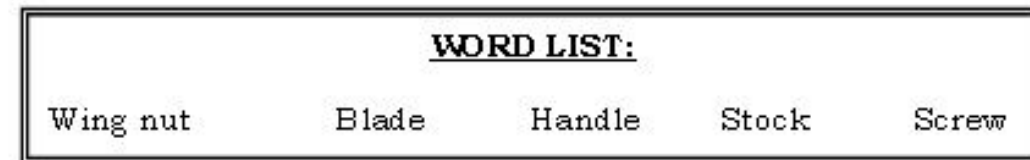


Figure 2

PART B

Name the parts of the hand tool given below and state a use of the tool.

Use the word list given below.



A: _____ B: _____ C: _____

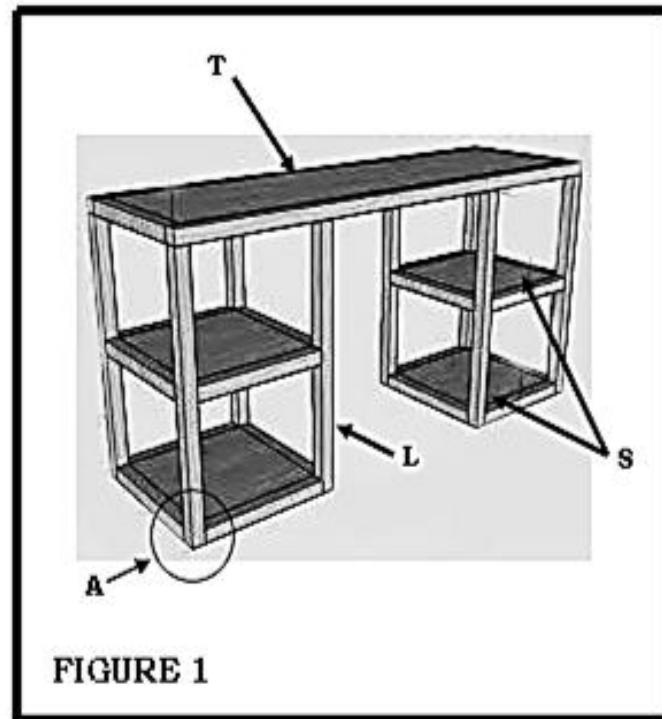
Use: _____

QUESTION 2

ENTERPRISING TASK

(10 marks)

Study the details given below and answer questions (i) to (iv):



Source: <http://www.pinterest.com>

FIGURE 1: Shoe Rack
All dimensions below are in millimetres.

1. **Top (T):**
 Length = 1200
 Width = 400
2. **Eight Legs (L):**
 Height = 500
 Width = 50
3. **Four Shelves (S):**
 Length = 400
 Width = 400

Label of Parts and Materials:
T - Top - Plywood
L - Legs - Dakua
S - Shelves - Plywood

Unit Costs:
 Dakua = \$0.000033/mm²
 Plywood = \$0.000040/mm²

(ii) Calculate the total cost of materials for the **Shoe Rack**. **(2 marks)**

Total Cost: _____

(iii) Name a **suitable joint** that can be used for detail **A** shown in **FIGURE 1**. **(1 mark)**

(iv) Explain a feature of green design that is considered in the construction of the **Shoe Rack**. **(2 marks)**

Requirements: (Show all calculations clearly)

(i) Complete the material list given below by filling the blank spaces. **(5 marks)**

ITEM	MATERIAL	SIZE (mm ²)	QUANTITY	COST OF MATERIALS
Top (P)	Plywood	1200 × 400	1	\$19.20
Legs (Q)		500 × 50		
Shelves (S)	Plywood		4	

THE END