- 4. (a) (i) Make a freehand pictorial sketch of a steel rule.
  - (ii) State one use of the steel rule.
  - (iii) State two methods of maintaining the steel rule.
  - (b) State one use of each of the following tools:
    - (i) G-clamp;
    - (ii) Soldering iron;
    - (iii) Mould box.
  - (c) Figure 3 shows the front elevation of a wall.

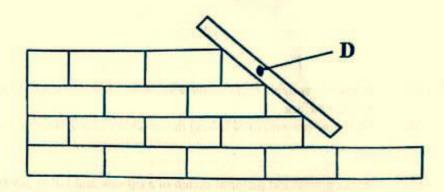


Figure 3

- (i) State the number of courses of the wall.
- (ii) Name the future continuation method shown on the wall.
- (iii) Identify the tool labelled D on the sketch.

[25 marks]

END OF ESSAY TEST

(d) Figure 1 shows the sketch of a planed timber board to be smoothened and polished. Use it to answer Questions (d) (i) and (d) (ii).

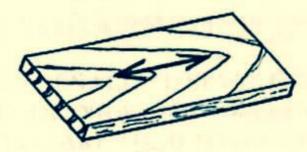


Figure 1

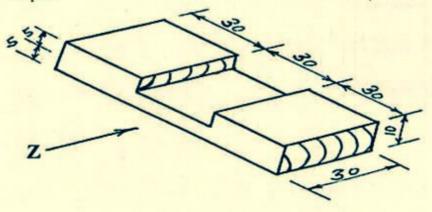
- Name the suitable abrasive material to be used to smoothen the timber surface.
- (ii) State one purpose of polishing the smoothened surface of the timber.

[25 marks]

- (a) (i) Make a freehand pictorial sketch of a rip saw and Label any two parts on the sketch.
  - (ii) State one use of the rip saw.
  - (b) Copy and complete the table below.

OPERATION	TWO TOOLS REQUIRED FOR EACH OPERATION
(i) Cutting tenon joint	(i) (ii)
(ii) Soldering sheet metals	(i) (ii)

- (c) Figure 2 shows a sketch of a wooden block. Draw to full size:
  - (i) the front view in the direction of arrow Z;
  - (ii) the plan.



1 hour 15 minutes

PAPER 2 ESSAY

Section A
Core skills
[20 marks]

## Answer Question 1 [COMPULSORY]

1. (a)		The head of a school is organizing a graduation party for the J.H.S graduates.  State two factors that would determine the type of meal service.		
	(b)	(i)	State two symptoms of scurvy.	[2 marks]
4177		(ii)	State two characteristics of a seam.	[2 marks]
	(c)	(i)	List two methods of drawing objects in pictorial view.	[2 marks]
		(ii)	State two analysis questions based on ergonomics.	[4 marks]
		(iii)	State one instrument used for drawing circles.	[1 mark]
	(d)	(i)	Define packaging.	[2 marks]
	12 67	(ii)	State three benefits of packaging.	[3 marks]
		(iii)	List two important information on a good package.	[2 marks]

Section B [50 marks]

Answer two questions only from this section.

All questions carry equal marks.

- (a) (i) Make a freehand pictorial sketch of a brick.
  (ii) Show the standard dimension of the brick on the sketch in (a) (i).
  - (b) List three materials suitable for making rivets.
  - (c) Copy and complete the table below.

TYPE OF TIMBER	ONE PROPERTY	ONE USE
(i) Wawa		
(ii) Odum		
(iii) Mahogany		