

4.16.1 Woodwork Paper 1 (444/1)

1. (a) Levels of qualifications.

- Artisan
- Craftsman
- Technician
- Engineer

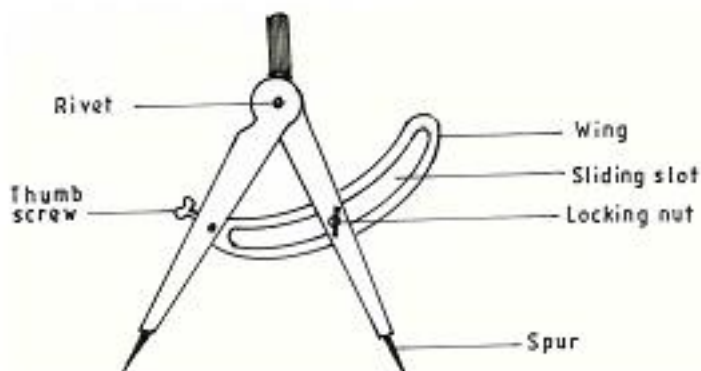
2 x 1 = (2 marks)

(b) Factors which determine the appearance of grains.

- Methods of cut.
- The location of the cut.
- The condition of wood.
- The arrangement of wood cells.
- Direction of cut.

4 x $\frac{1}{2}$ = (2 marks)

2. Wing divider



Sketch = 2
Labels, Any 4 x $\frac{1}{2}$ = 2

= 4 mks

(4 marks)

3. difference between chamfering and rounding



Chamfer end

Chamfering is the shaping of the aris end or edge of a piece of wood at an angle



Round end

Rounding is the shaping of the aris end or edges of a piece of wood at a given radius

Sketching 2x1 = 2
Expl. 2x1 = 2

= 4 mks



4. (a) Texture - is a surface $\frac{1}{2}$ condition resulting from the size $\frac{1}{2}$ and distribution $\frac{1}{2}$ of wood cells $\frac{1}{2}$.

(b) Figure - pattern $\frac{1}{2}$ or markings which are formed $\frac{1}{2}$ on the surface of processed $\frac{1}{2}$ timber as a result of wood tissue being cut $\frac{1}{2}$ through.



2 x 2 = (4 marks)

5. (a) **Functions of a jointer**

- Makes edges straight and square.
- Makes rebates, tongues and chamfers.

2 x 1 = (2 marks)

(b)

EXTINGUISHING AGENTS	CLASS OF FIRE
Water and sand	A 
Chemicals and foam	B 

2 x 1 = (2 marks)

6. (a) **Four characteristics of laquer**

- Crystal clear
- Fast drying
- Produce hazardous fumes during application
- Can be sprayed or brushed
- Do not form layers as thick as most varnishes.

Any 4 x $\frac{1}{2}$ = (2 marks)

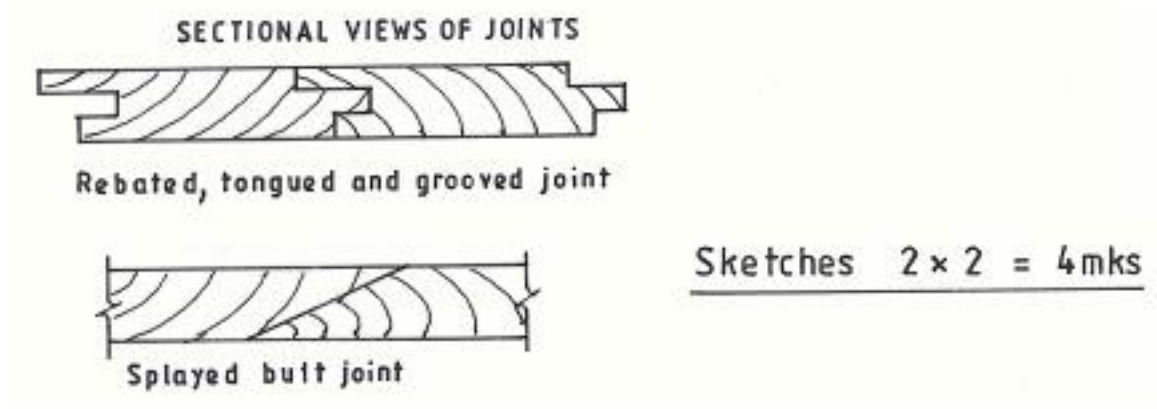
(b) **Classification of pencils**

Soft	Medium	Hard
3 B	B	4 H
2 B	HB	2 H

(3 marks)



7. Sectional views of joints

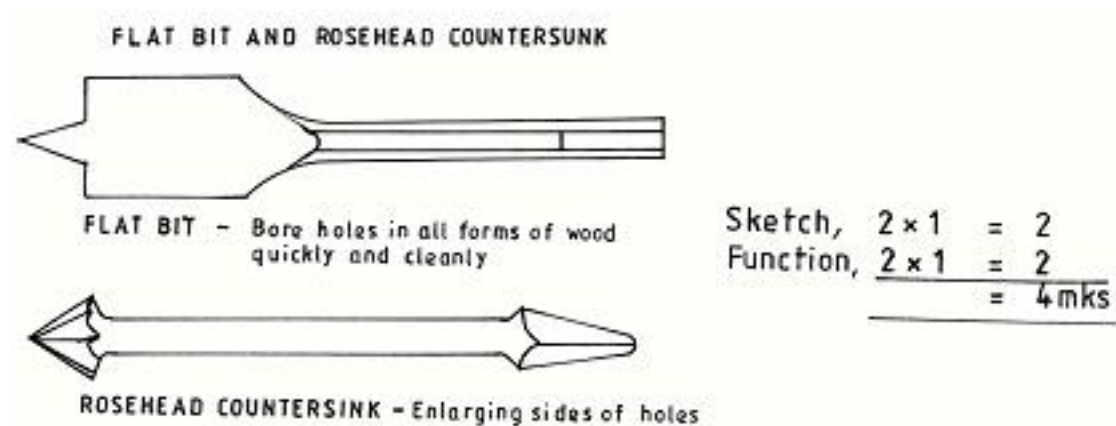


8. Precautions to be observed when using a saw

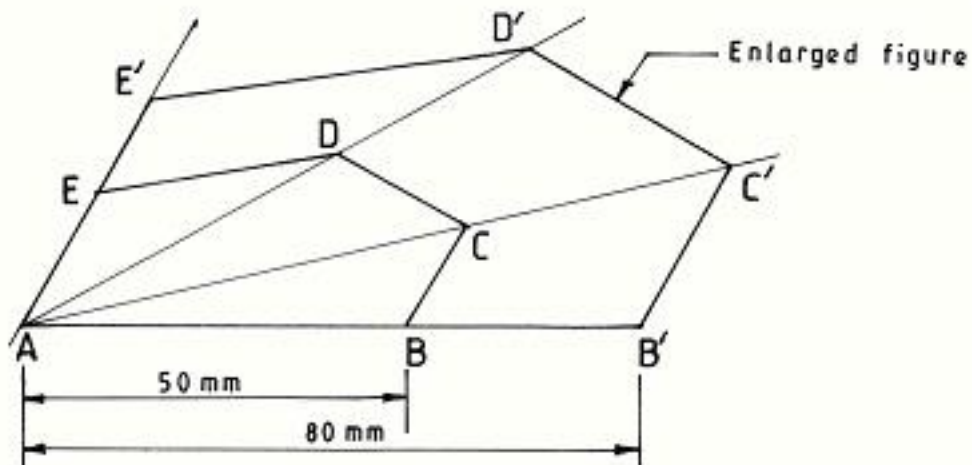
- No nails/ metallic objects in the workpiece.
- No obstacles in front of the cutting line.
- Ensure that the saw is well maintained.
- Make/ apply uniform strokes to drive the saw.

Any $3 \times 1 = (3 \text{ marks})$

9.

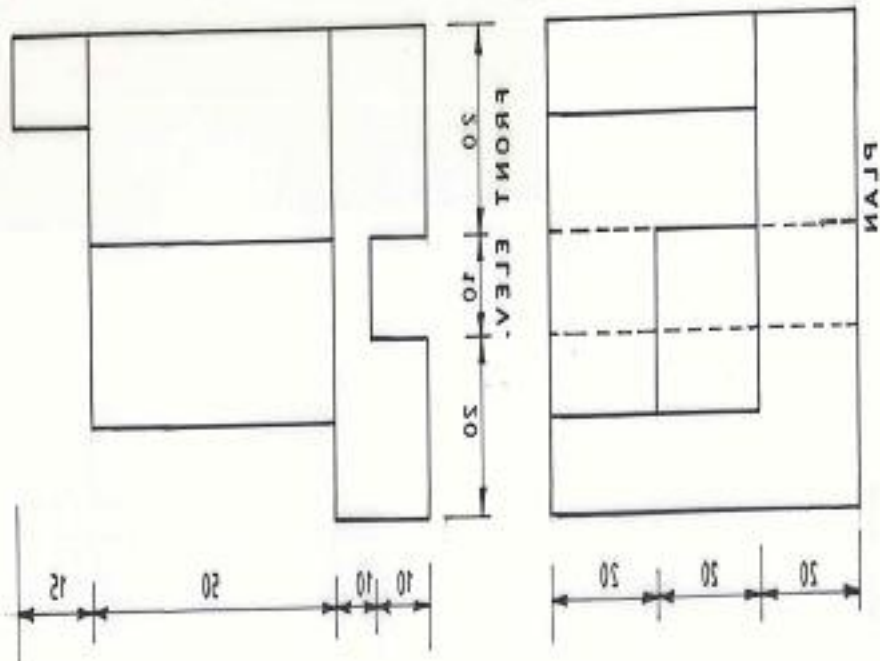


10. Enlargement



Length 80mm (A'B')	= 1
Radiation lines	= 1
Enlarged figure	= 1
Original figure	= 1
	<u>= 4 mks</u>





	12 weeks
2	1
15 x 1/2	1
20 x 1/2	1
20	1

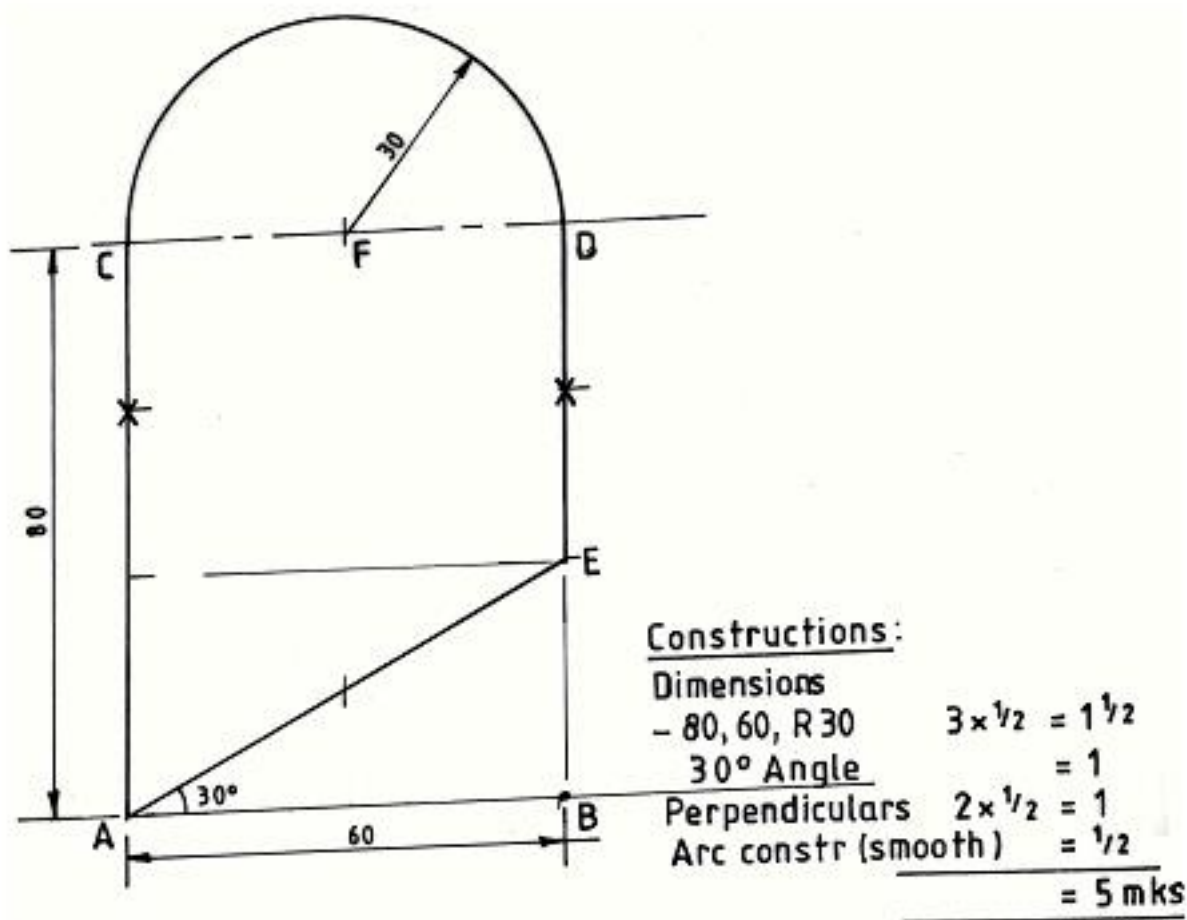
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12. (a) Precautions to be observed when using a steel tape measure.

- Do not pull or push the tape when the locking device is engaged.
- Check the accuracy with a vernier calliper to ensure the hook at the end is not bend.
- Do not extend the tape beyond its limits.
- Do not drop the tape.

3 x 1 = (3 marks)

(b) (i)



(ii) Step of marking out the shape

- Establish line AB = 60 mm
- At point A and B construct perpendicular lines.
- At point A and B and along the perpendicular line, mark 80 mm - C and D.
- At point A construct $\angle 30^\circ$ to cut at E.
- Measure 30 mm from point E to establish point F.
- At point F construct an arc 30 mm radius to meet at C and D.
- Join points A, C, D and E to produce the desired shape.

7 x 1 = (7 marks)



13. (a) **Factors to consider when grading timber.**

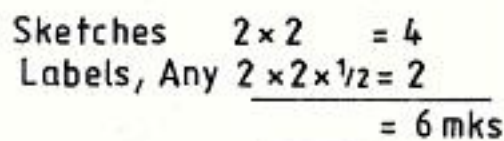
- (5 marks)

(b) **Purpose of a primer**

- Prevent previous applied finishes from bleeding into the paint.
- Seals wood pores and stick to surfaces better than paint does.
- As they seal the pores, they make the surface smooth, hence the surface is easier to paint and less absorbent.
- Help to preserve the wood and reduce blistering, peeling and ratting.
- Forms a surface for finishing coat.

Any 4 x 1 (4 marks)

(c) **Blockboard and plywood**



14. (a) **Benefits of small business start up**

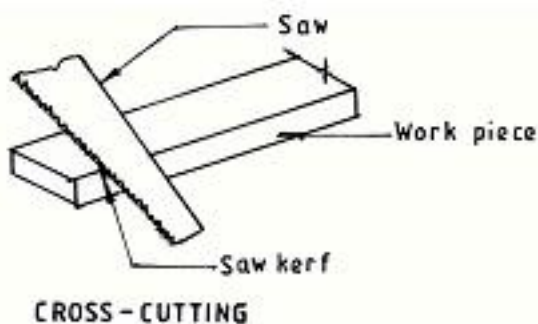
- Creates employment to the local community.
- Control the rural urban migration
- Generates revenue to the local authority by paying levies.
- Takes services closure to the people.
- Improves the living standards of the local community.
- Makes use of the locally available materials.
- Creates taxable revenue to the Government.

Any 6 x 1 = (6 marks)

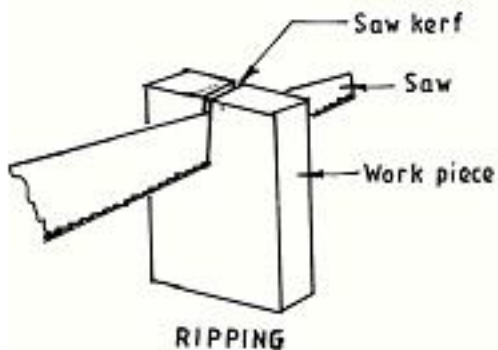
(b) **Cutting list**

Item No.	description	Size (mm)	No. Off	Marks
1	Top	25 x 150 x 900	1	= 2
2	Bottom	25 x 200 x 900	1	= 2
3	Sides	25 x 200 x 600	2	= 2
4	Partition	25 x 200 x 600	1	= 2
Format = 1				= 9 marks

15. (a)



Cross-cutting is the act of cutting wood across the grains using a cross-cut saw



Ripping is the act of cutting timber along the grains using a rip saw

Sketches	2 x 2	= 4
Labels, Any	2 x 2 x 1/2	= 2
Description	2 x 1	= 2
		<u>= 8 mks</u>



(b) **Advantages of quarter sawing**

- retains the shape upon drying.
- Produces decorative radial face.
- Produces timber appropriate for joists.

Any 2 x 1 = (2 marks)

disadvantages

- Expensive form of conversion.
- Creates a lot of waste.
- Ideal for large logs.

Any 2 x 1 = (2 marks)

Total = 4 marks

(c) **Precautions to avoid splitting.**

- Ensure the workpiece is clamped firmly on the bench.
- Select an appropriate chisel.
- Apply light blows to start with.
- Turn the piece and finish from the other side.

Any 3 x 1 = (3 marks)

