5.2 WOODWORK (444)

5.2.1 Woodwork Paper 1 (444/1)

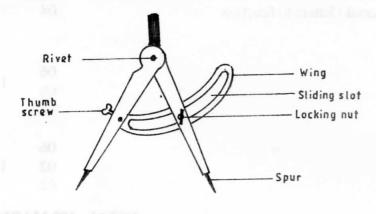
- 1. (a) Levels of qualifications.
 - Artisan
 - Craftsman
 - Technician
 - Engineer

 $2 \times 1 = (2 \text{ marks})$

- (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.

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

2. Wing divider



Sketch = 2
Labels, Any
$$4 \times ^{1/2} = 2$$

= 4 m/s

(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
$$2 \times 1 = 2$$

 $Expl.$ $2 \times 1 = 2$
 $= 4 \text{mks}$



- 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.

 $2 \times 2 = (4 \text{ marks})$

5. (a) Functions of a jointer

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

 $2 \times 1 = (2 \text{ marks})$

(b)

EXTINGUISHING AGENTS	CLASS OF FIRE		
Water and sand	A (1)		
Chemicals and foam	в 1		

 $2 \times 1 = (2 \text{ marks})$

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	В	4 H
2 B	НВ	2 H

(3 marks)

7. Sectional views of joints

SECTIONAL VIEWS OF JOINTS



Rebated, tongued and grooved joint



Sketches $2 \times 2 = 4mks$

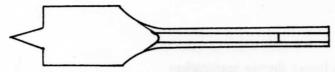
8. Precautions to be observed when using a saw

- 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.

FLAT BIT AND ROSEHEAD COUNTERSUNK

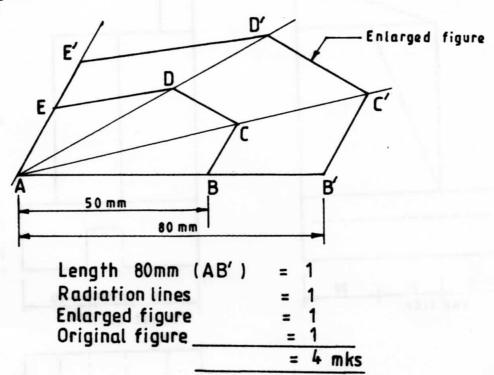


FLAT BIT - Bore holes in all forms of wood quickly and cleanly

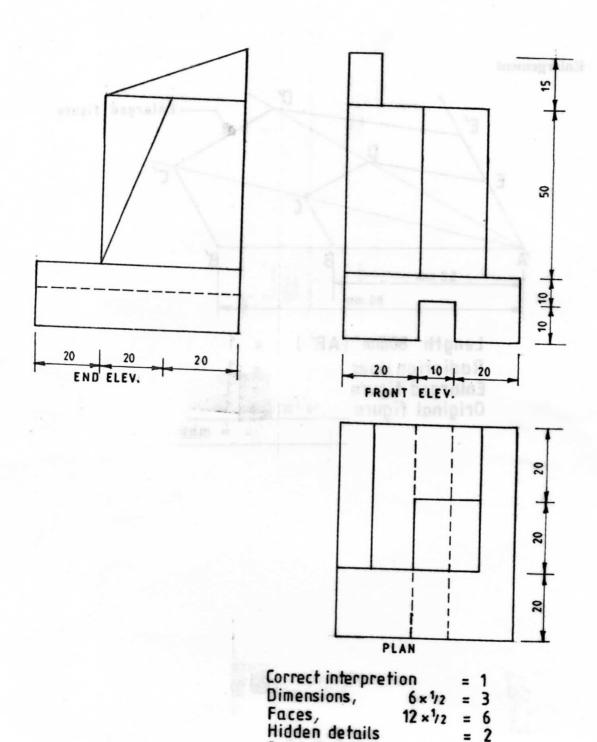
ROSEHEAD COUNTERSINK - Enlarging sides of holes

Sketch, $2 \times 1 = 2$ Function, $2 \times 1 = 2$ = 4mks

10. Enlargement



11.



(15 marks)

= 1

= 15 mks

Correct scale Construction lines

Neatness

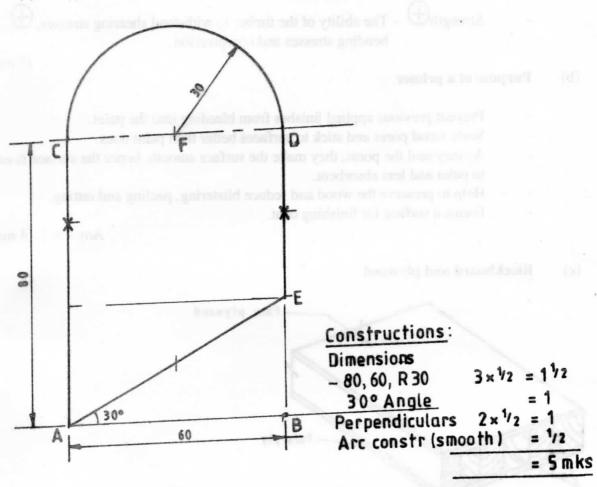


12. (a) Precautions to be observed when using a steel tape measure.

- 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.

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





(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 ∠30° 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.

 $7 \times 1 = (7 \text{ marks})$

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

Quality $\frac{1}{2}$ - when judging the quality the grader considers the type $\frac{1}{2}$, size $\frac{1}{2}$ and number $\frac{1}{2}$ of defects on the face (i.e) natural defect, sawing defect, seasoning e.t.c.

Condition - The grader should consider the condition of the surface (i.e) staining , discolouration due to weathering, fungi attack moisture content e.t.c.

- Strength - The ability of the timber to withstand shearing stresses, bending stresses and compression.

(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.

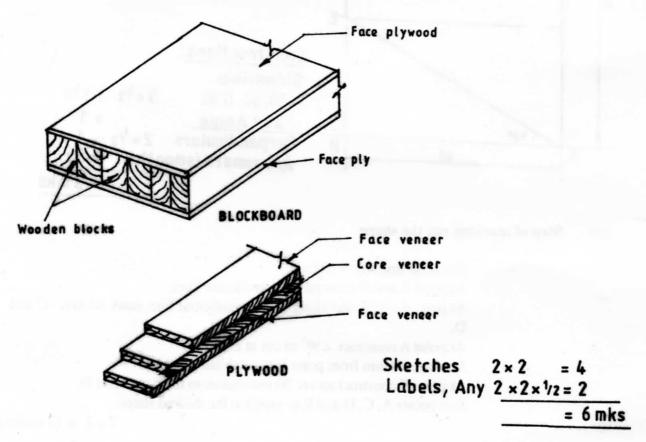
- As they seal the pores, they make the surface smooth, hence the surface is easier to paint and less absorbent.

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 $6 \times 1 = (6 \text{ marks})$

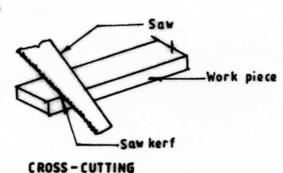
(b) Cutting list

Item No.	Description	Size (mm)	No. Off	Marks
1	Тор	25 x 150 x 900	1	= 2
2	Bottom	25 x 200 x 900	phow pdr s	= 2
3	Sides	25 x 200 x 600	2	= 2
4	Partition	25 x 200 x 600	aroto suga	= 2

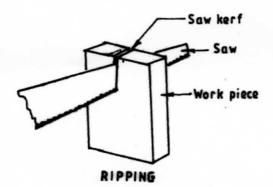
Format = 1

= 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
$$2 \times 2 = 4$$

Labels, Any $2 \times 2 \times \frac{1}{2} = 2$
Description $2 \times 1 = 2$
 $= 8 \text{ m/s}$



(b) Advantages of quarter sawing

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

Any $2 \times 1 = (2 \text{ marks})$

Disadvantages

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

Any $2 \times 1 = (2 \text{ marks})$

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