

**GAUTENG DEPARTMENT OF EDUCATION
GAUTENGSE DEPARTEMENT VAN ONDERWYS**

**SENIOR CERTIFICATE EXAMINATION
SENIORSERTIFIKAAT-EKSAMEN**

**WOODWORK SG
HOUTWERK SG**

POSSIBLE ANSWERS OCT / NOV 2006

QUESTION / VRAAG 1

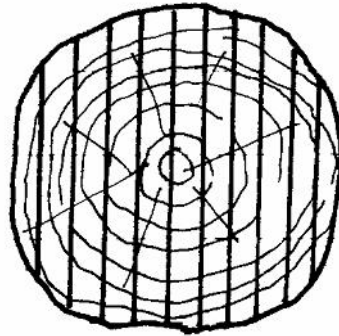
1A			
1.1	B	1.11	C
1.2	C	1.12	A
1.3	A	1.13	C
1.4	B	1.14	C
1.5	A	1.15	A
1.6	B	1.16	D
1.7	D	1.17	A
1.8	D	1.18	B
1.9	A	1.19	B
1.10	B	1.20	D
			(20)
1B			
1.21	A	1.26	B
1.22	C	1.27	B
1.23	C	1.28	C
1.24	A	1.29	A
1.25	B	1.30	B
			(10)
			[30]

QUESTION / VRAAG 2

2.1	A	4		I	4		
	B	5		J	3		
	C	6		K	3		
	D	1		L	2		
	E	6		M	2		
	F	7		N	1		
	G	7		O	3		
	H	2 / 5		P	4		
							(16)
2.2							
2.2.1	(i)	To restrict attacks by insects.	(i)	Om aanvalle deur insekte te beperk.			
	(ii)	To prevent blue colouring.	(ii)	Om blouverkleuring teen te werk.			
	(iii)	To prevent surface cracks.	(iii)	Om barste te beperk.			
	(iv)	Wet wood saws easier.	(iv)	Nat hout saag makliker.			
							(4)

2.2.2 Cross-cutting method

Deursnee-metode



(2)

- 2.2.3 (i) Most economical method
- (ii) Quickest method
- (iii) Easy method
- (iv) Produces the most wood with the least waste.
- (v) Produces boards of maximum width (Any 3)

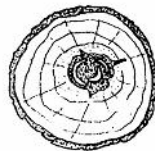
- (i) *Mees ekonomiese metode*
- (ii) *Vinnigste metode*
- (iii) *Maklikste metode*
- (iv) *Lewer meeste hout met minste vermorsing.*
- (v) *Lewer planke van maksimum breedte. (Enige 3)*

(3)

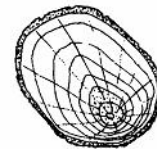
2.3

2.3.1

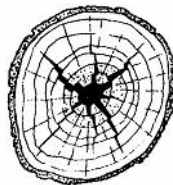
Heart rot
Kernverrotting



Reaction wood
Reaksiehout



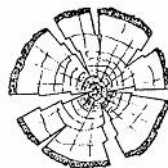
Heart shake
Kernbars



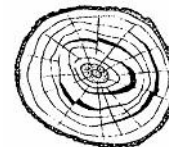
Not centred pith
Nie-gesentreerde pit



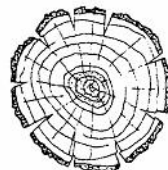
Star Shake
Sterbars



Cup or ring shake
Kringbars



Windshake
Windbars



(Any 2 / Enige 2)

(4)

2.3.2 The ends of a board dry faster than the rest of the board, shrinking occur uneven and causes cracks.

Die ente van planke droog vinniger as die res van die plank en inkrimping vind oneweredig plaas wat barste veroorsaak.

(2)

2.3.3	<ul style="list-style-type: none"> • Knots can cause working problems. • Knots can reduce the strength of a board 	<ul style="list-style-type: none"> • <i>Kwaste gee bewerkingsprobleme</i> • <i>Kwaste kan die sterkte van ? plank nadelig beïnvloed.</i> 	(2)
2.3.4	S.A. Pine	S.A. -den	(1)
2.3.5	It occurs when the fibres and grain form different angles with the surface of the board.	<i>Dit kom voor wanneer die vesels en grein verskillende hoeke met die oppervlak van die plank vorm.</i>	(2)
2.4			
2.4.1	Structural wood.	<i>Konstruksiehout</i>	(1)
2.4.2	V – Visual strength grade M – Mechanical strength grade	<i>V – Visuele sterkte-graad M – Meganiese-sterkte-graad</i>	(2)
2.4.3	S.A. pine	S.A.-den	(1)

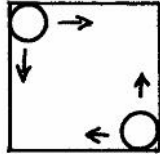
[40]**QUESTION / VRAAG 3**

3.1	To make accurate measurements.	<i>Om akkurate afmetings te doen.</i>	(1)
3.2	To test flat surfaces.	<i>Die toets van plat vlakke.</i>	(1)
3.3			
3.3.1	Tenon saw: <u>Fault:</u> The set is not correct <u>Correction:</u> Use a saw set to bend the teeth left and right alternately in order to widen the kerf.	<i>Rugsag <u>Fout:</u> Tande van saag is nie korrek geset nie. <u>Regstelling:</u> Gebruik saagsetter om tande om die beurt na links en regs te buig sodat die snit wyer kan wees.</i>	(2)
3.3.2	Jack plane: <u>Fault:</u> Poorly fitting cap iron. <u>Correction:</u> The entire front of the cap iron must rest on the cutting iron.	<i>Voorloperskaaf: <u>Fout:</u> Slegpassende keerbeitel <u>Regstelling:</u> Die bek van die keerbeitel moet sy volle breedte op die skaafbeitel rus.</i>	(2)
3.3.3	Smoothing plane: <u>Fault:</u> The cutting iron protruding at an angle to the bottom of the plane. <u>Correction:</u> Adjust the lateral adjusting lever to straighten the cutting iron	<i>Soetskaaf: <u>Fout:</u> Die skaafbeitel lê skuins <u>Regstelling:</u> Druk die sydelingse stelarm na links of regs sodat die beitel ewe ver by die sool uitsteek.</i>	(2)

3.3.4	<p>Screwdriver:</p> <p><u>Fault:</u></p> <ul style="list-style-type: none"> – The screwdriver is not being held in line with the screw – The tip is too thin <p><u>Correction:</u></p> <ul style="list-style-type: none"> – Hold the screwdriver in line with the screw. – Replace with a screwdriver where the tip fits snugly into the slot of the screw. 	<p><i>Skroewedraaier:</i></p> <p><u>Fout:</u></p> <ul style="list-style-type: none"> – <i>Die skroewedraaier word nie regop gehou nie.</i> – <i>Die punt is te dun</i> <p><u>Regstelling:</u></p> <ul style="list-style-type: none"> – <i>Hou die skroewedraaier regop</i> – <i>Vervang met ? skroewedraaier waarvan die punt reguit, plat en vol in die skroefgleuf pas.</i> 	(2)
3.4			
3.4.1	The hammer might damage the wood.	<i>Die hamer kan die hout beskadig.</i>	(1)
3.4.2	Cross pene hammer / claw hammer and nail punch.	<i>Dwarspenhamer / klouhamer en spykerpons.</i>	(2)
3.4.3	Wood filler	<i>Houtvuller</i>	(1)
3.5	To remove the burr on the chisel's cutting edge.	<i>Om die braam op die punt van die beitel te verwyder.</i>	(2)
3.6			
3.6.1	Both boards must be equal in thickness and width. The boards must also be squared.	<i>Die twee planke se dikte en breedte moet dieselfde wees. Die hout moet haaks wees.</i>	(2)
3.6.2	<ul style="list-style-type: none"> • Use board A to determine the width of the joint on board B. • Use the try square and draw square lines to show the width of the joint. • Use a marking gauge and mark the depth of the joint. 	<ul style="list-style-type: none"> • <i>Gebruik plank A en bepaal die breedte van die voeg op plank B.</i> • <i>Gebruik winkelhaak en trek haakse lyne om breedte van voeg aan te toon.</i> • <i>Gebruik enkelpenkruishout en merk diepte van voeg af.</i> 	(3)
3.6.3	<ul style="list-style-type: none"> • Use a tenon saw and cut on inside of the width line up to the depth line. • Use the tenon saw and cut from the edge along the depth line up to the width line. • Use a firmer chisel / paring chisel to remove excess material. • Fit joint, work off until it fits. 	<ul style="list-style-type: none"> • <i>Gebruik rugsaag en saag aan binnekant van breedte tot op dieptelyn.</i> • <i>Gebruik rugsaag en saag vanaf kopkant langs dieptelyn tot teenaan breedte.</i> • <i>Gebruik steekbeitel / skilbeitel en verwyder oortollige materiaal.</i> • <i>Pas voeg, werk af totdat pas.</i> 	(4)

3.7			
3.7.1	(i) Head stock – Spur centre. (ii) Tail stock – Conical centre or Ball bearing centre.	(i) <i>Vaskop – vurksenter</i> (ii) <i>Loskop – Koniese senter of koeëllaer-senter.</i>	(2)
3.7.2	Low	<i>Stadig</i>	(1)
3.7.3	Firmer gauge	<i>Gutsbeitel</i>	(1)
3.7.4	High	<i>Vinnig</i>	(1)
3.7.5	Remove the tool post	<i>Dit word verwyder</i>	(1)
3.7.6	(i) Wear safety goggles (ii) Put away all loose clothing.	(i) <i>Dra veiligheidsbril</i> (ii) <i>Steek alle loshangende kledingstukke in.</i>	(2)
3.8			
3.8.1	<ul style="list-style-type: none"> • Loosen the adjustable table and set it square to the sanding disk. • Check with try-square 	<ul style="list-style-type: none"> • <i>Maak die verstelbare blad los en stel haaks ten opsigte van skuurskyf.</i> • <i>Kontroleer met winkelhaak.</i> 	(2)
3.8.2	Mitre guide	<i>Verstekgids</i>	(1)
3.8.3	Against the downwards moving side.	<i>Teen die afbewegen de deel.</i>	(1)
3.8.4	The sanding action presses the work onto the table. It also prevents dust from being kicking up.	<i>Die skuuraksie druk die werk op die tafel vas. Dit voorkom dat stof opgeskop word.</i>	(2)
3.9			
3.9.1(a)	<ul style="list-style-type: none"> • Disconnect power supply • Loosen chuck and change cutter • Fasten chuck • Loosen plunger knob • Set depth of cutter • Fasten plunger knob 	<ul style="list-style-type: none"> • <i>Ontkoppel kragtoevoer</i> • <i>Draai klembus los en vervang beitel</i> • <i>Draai klembus vas</i> • <i>Draai plunjerkop los</i> • <i>Stel beitediepte</i> • <i>Draai plunjerkop vas</i> 	(2)
(b)	<ul style="list-style-type: none"> • Edging • Mouldings • Grooving • Joining cuts • Template cutting • Engraving • Wood carving • Routing 	<ul style="list-style-type: none"> • <i>Randlyssnywerk</i> • <i>Lyssnywerk</i> • <i>Groefsnnywerk</i> • <i>Voegsnnywerk</i> • <i>Vormsnnywerk</i> • <i>Graveerwerk</i> • <i>Houtsneewerk</i> • <i>Verdiepwerk</i> 	(Enige 2) (2)
	(Any 2)		

- 3.9.2 Drill two holes (big enough to take the blade) in the opposite corners of the square hole. Start cutting from the holes to the other two corners. *Boor twee gate (groot genoeg sodat die lem daardeur pas) in die teenoorgestelde hoeke van die vierkantige gat. Saag vanuit die gate na die ander twee hoeke.*



(3)

- 3.10
- Wear rubber gloves or plastic bags when administering first aid.
 - Do not touch the blood.
 - Dra rubberhandskoene of plastieksakke as jy noodhulp toepas.
 - Moet nie aan bloed raak nie.

(2)

[50]**QUESTION / VRAAG 4**

- 4.1
4.1.1 B
4.1.2 C
4.1.3 D
4.1. A

(4)

- 4.2
4.2.1

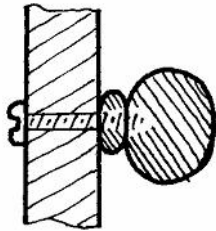


(4)

- 4.2.2 If the end grain lies in the same direction, warping will take place. *Indien die endgrein in dieselfde rigting lê, sal kromtrekking plaasvind.* (2)
- 4.2.3 The grain of the boards must run in the same direction. *Die grein van die planke moet in dieselfde rigting loop.* (1)
- 4.2.4 So that finishing could be done with the grain all over. *Sodat afwerking oral saam met die greinrigting kan geskied.* (2)

- 4.3
- 4.3.1
- Drawer dovetail joint (lapped)
 - Rebate joint
 - Tongue and groove joint (Any 2)
- *Laaiswaelste rtoeg*
 - *Sponningsvoeg*
 - *Tong-en-groefvoeg.* (Enige 2) (2)
- 4.3.2 Housing joint *Inlaatvoeg* (1)
- 4.3.3
- Hard board
 - Ply wood (Any 1)
- Hardebord
 - Laaghout (Enige 1) (1)
- 4.3.4 By means of a groove and panel pins to the bottom of the drawer back. *Deur middel van ? groef en paneel-spykers onderaan die agterkant.* (2)

4.3.5

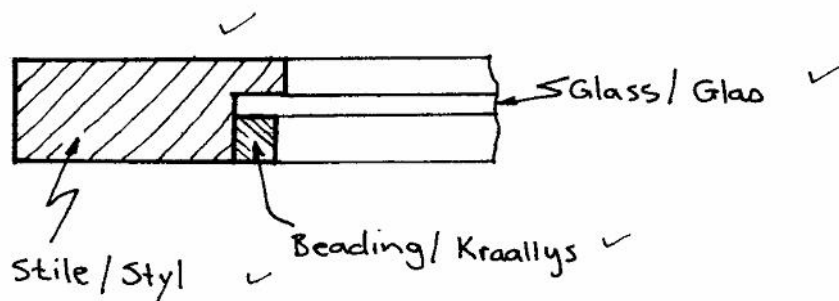


(2)

4.4

- 4.4.1 Long and short shoulder mortice and tenon joint. *Lang-en-kortskouer-tap-en-gatvoeg.* (1)

4.4.2



(4)

4.5

- 4.5.1
- | | | | |
|---|------|-------------|-----|
| A | Leg | <i>Poot</i> | |
| B | Rail | <i>Rail</i> | (2) |

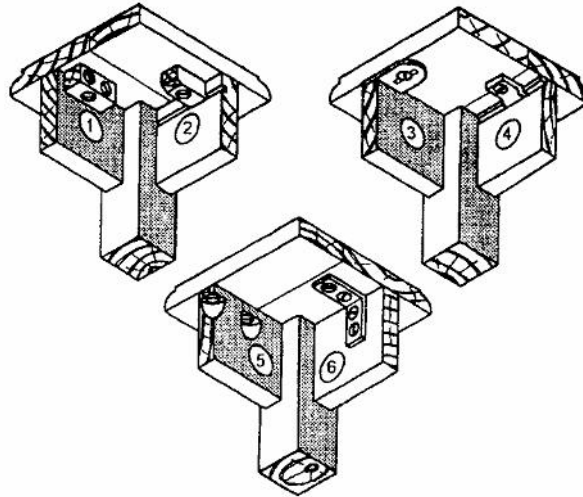
- 4.5.2 Stub mortice and tenon joint. *Stomp tap-en-gatvoeg* (1)

4.5.3 Show the following:

- Table top
- Rail
- Fixing

Toon die volgende:

- Tafelblad
- Reling
- Hegting



(Any 1 / Enige 1)

(4)

4.5.4 Use a tape measure and measure the corners across. If the two distances are the same, then the frame will be square.

Gebruik 'n maatband en meet die hoeke oorkruis. Indien die twee afstande dieselfde is, sal die raam haaks wees.

(2)

4.6

4.6.1

- Surfaces must fit properly
- Dust and cuttings must be removed.

- Vlakke moet behoorlik pas
- Stof en saagsels moet verwyder word.

(2)

4.6.2

- Apply to both surfaces.
- Apply glue evenly.

- Wend lym op albei oppervlakke aan.
- Wend lym egalig aan.

(1)

4.6.3

- A joint is placed under pressure to distribute the glue evenly and to
- force out air bubbles and excess glue.
- It forces the glue into the pores of the wood.
- It ensures good contact between the surfaces.
- Pressure must be maintained until the joint is strong enough to keep together.

- 'n Las word onder druk geplaas om lym egalig te versprei.
- Om lugblasies en oortollige lym uit te pers.
- Dit forseer lym in porieë van die hout.
- Verseker goeie kontak tussen oppervlakte.
- Druk moet aanhou totdat las sterk genoeg is om aan mekaar te bly.

(Any 2)

(Enige 2)

(2)

[40]

QUESTION / VRAAG 5

- 5.1
- 5.1.1 (i) Rot fungi (i) *Verrottingswam*
(ii) Discolouration fungus (ii) *Verkleuringswam* (2)
- 5.1.2 (i) Termites (i) *Termiete*
(ii) Beetles (ii) *Kewers* (2)
- 5.1.3
- Easily be absorbed by the wood. • *Maklik deur die hout geabsorbeer word.*
 - Be cheap and readily available. • *Goedkoop en maklik verkrybaar wees.*
 - Be poisonous and / or repel the organisms • *Giftig en / of afwerend wees vir houtvernietigende faktore.*
 - Not be harmful to humans and animals. • *Nie nadelig vir mens en dier wees nie.*
 - Not easily macerate or evaporate. • *Nie maklik uitloog of verdamp nie.*
 - Not corrode metal. • *Nie nadelig met metale reageer nie.*
 - Not reduce the strength of the wood. • *Nie die hout verswak nie.*
 - Not have an unpleasant smell. • *Nie onaangenaam ruik nie.*
 - Not spoil the natural beauty of the wood. • *Nie die natuurlike voorkoms van die hout verander.*
 - Not give the wood a resistance to paint, etc. • *Nie die hout ? weerstand gee teen verf, ens.*
 - Not make the wood more flammable. (Any 4) • *Nie die ontvlambaarheid van die hout verhoog nie. (Enige 4)* (4)
- 5.1.4 Creosote *Kreosoot* (1)
- 5.1.5 (i) The type of timber. (i) *Die soort hout.*
(ii) The final uses of the timber. (ii) *Waar die hout gebruik sal word.* (2)
- 5.1.6 (i) Surface coating (i) *Oppervlakbestryking*
(ii) Soaking (ii) *Deurweking*
(iii) Hot and cold open tank process (iii) *Warm en koue ooptenkproses*
(iv) High pressure processes. (Any 1) (iv) *Hoëdruk-prosesse. (Enige 1)* (1)
- 5.2
- 5.2.1(a) Remove all marks, sand to a smooth surface and remove all dust. *Verwyder alle merke, skuur glad en verwyder stof.* (2)
- (b) Dilute varnish and apply evenly. *Verdun vernis en wend egalig aan.* (1)
- (c) Remove roughness by using steel wool. *Verwyder growwigheid deur van staalwol gebruik te maak.* (2)
- (d) ± 48 hours *± 48 uur* (1)

- 5.2.2
- (i) Not heat resistant
 - (ii) Not water resistant
 - (iii) Scratches easily
 - (iv) Most varnishes cannot be applied over wax
 - (v) Needs constant maintenance.
- (Any 3)

- (i) Nie hitte bestand nie
 - (ii) Nie waterbestand nie
 - (iii) Krap maklik
 - (iv) Vernis kan nie bo-oor was aangewend word nie.
 - (v) Vereis gereelde instandhouding.
- (Enige 3) (3)

5.3
5.3.1

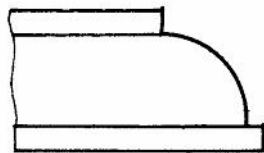


Example / Voorbeeld

- Show at least 4 turning profiles
Toon ten minste 4 draaivorms
- Look at ratio
Kyk na verhouding

(10)

5.3.2



Example / Voorbeeld

(2)

5.3.3 The anatomy of the human body and the reach of a person. *Die anatomie van die menslike liggaam en die reikafstand van die mens.* (2)

5.4 Cape furniture style / Kaapse meubelstyl Contemporary furniture / Eietydse meubels

(i) Solid wood / *Soliede hout* (i) Board products / *Bordprodukte*
(ii) Riempiers chair / *Riempiersstoel* (ii) Machine made / *Masjienvervaardig*
(iii) Animal glue / *Dierelym* (5)
[40]

TOTAL / TOTAAL: 200÷2=100