STUDENT EDUCATION NUMBER									

Samoa National Junior Secondary Certificate

DESIGN TECHNOLOGY

2023

QUESTION and ANSWER BOOKLET

Time allowed: 3 Hours & 10 minutes

INSTRUCTIONS

1. You have 10 minutes to read **before** you start the exam.

2. Write your **Student Education Number (SEN)** in the space provided on the top right-hand corner of this page.

3. **Answer ALL QUESTIONS.** Write your answers in the spaces provided in this booklet.

4. If you need more paper to write your answers, ask the Supervisor. Write your SEN on all extra sheets used and clearly number the questions. Attach the extra sheets to the appropriate places in this booklet.

STRANDS		Pages	Time (min)	Weighting
STRAND 1	DESIGN PROCESS	2 – 5	40	25
STRAND 2	DRAWING	6 – 7	30	15
STRAND 3	TOOLS	8 – 9	30	15
STRAND 4	MATERIALS	10 – 11	30	15
STRAND 5	PROCESS	12 – 15	40	25
STRAND 6	TECHNOLOGY	16	10	5
	TOTAL		**180**	**100**

Check that this booklet contains pages 2 - 17 in the correct order and that none of these pages are blank.

HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

STRAND 1   **DESIGN PROCESS**   **WEIGHTING 25**

1.   Name **ONE** stage in the Design Brief.

SL 1

_____

2.   What is a Specification?

SL 1

_____

_____
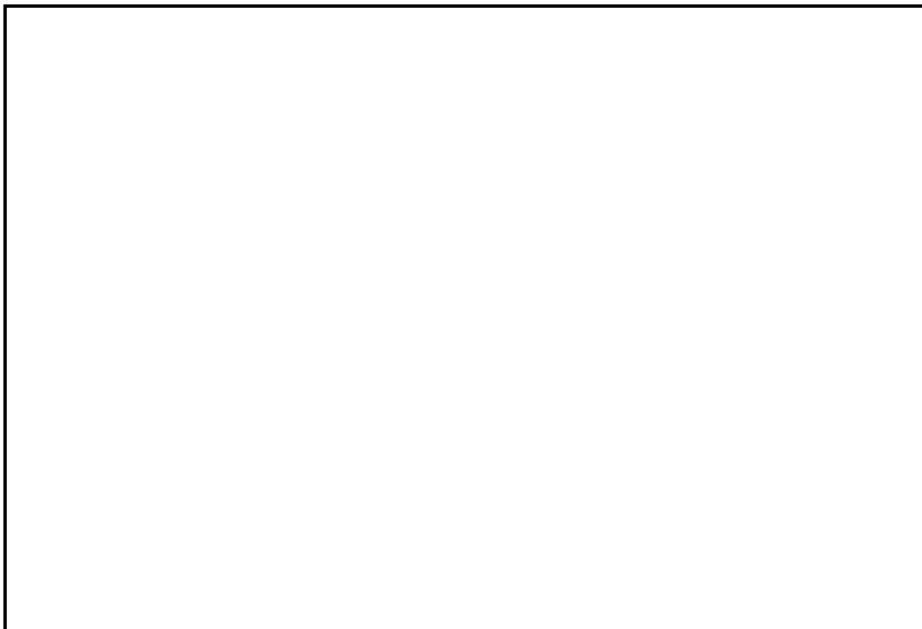
3.   Name **TWO** stages in the Design Process.

A.   _____

SL 1

B.   _____

4.   Draw **THREE** different designs for a coffee table.

SL 2

5.   List **TWO** types of Design Brief you studied this year.

   A.   _____

   B.   _____

6. Explain the purpose of specifications in a project building.

_____

_____

_____

_____

_____

_____

_____

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_____

SL 3

7. Explain the main focus of project sketching.

_____

_____

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_____

SL 3

8. Provide **THREE** specifications for your independent project at school.

A. _____

_____

B. _____

_____

C. _____

_____

SL 4

9. Compile **THREE** sets of criteria when evaluating an independent project.

    A. _____

        _____

    B. _____

        _____

    C. _____

        _____

SL 4

10. Define the term **dimension line**.

_____

_____

SL 1

11. Describe an isometric drawing.

_____

_____

_____

_____

SL 2

12. List the **TWO** types of lettering and numbering used in drawing.

A.   _____

B.   _____

SL 2

13. Explain the purpose of a construction line in a drawing.

_____

_____

_____

_____

_____

_____

_____

_____

_____

SL 3

14. Explain the purpose of a Plan.

_____

_____

_____

_____

_____

_____

SL 3

_____

_____

_____

15. Draw **THREE** sketches for the following type of drawings.

Oblique Drawing
45-degree projection

Orthographic Drawing
3rd Angle projection

Isometric Drawing
30-degree projection

16. Define the following tools.

_____
_____
_____

SL 1

_____
_____
_____

SL 1

_____
_____
_____

SL 1

17 List **TWO** power tools that replace the usage of a hand saw and coping.

A. _____

B. _____

SL 2

18. Explain the main purpose of power tools.

_____
_____
_____
_____
_____
_____
_____
_____

SL 3

19. Describe specific personal protective equipment when cutting timber using a power tool.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

20. Differentiate between the maintenance and storing of tools.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

21.   Name the THREE main parts of a tree growth.

A.   _____

B.   _____

C.   _____

SL 1

22.   Name a defect on timber caused by tree branches.

_____

SL 1

23.   Describe the appearance of an overseas timber.

_____

_____

_____

_____

_____

SL 2

24.   List TWO sizes of timber materials you worked with or studied at school.

A.   _____

B.   _____

SL 2

25.   Explain why timber is treated.

_____

_____

_____

_____

_____

_____

_____

_____

SL 3

26. Clarify how timber is graded.

_____

_____

_____

_____

_____

_____

_____

_____

_____

27. Describe **TWO** qualities of a local timber.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

28.   Sketch the following types of joints.

A.   Butt Joint

SL 1

B.   Mitre Joint
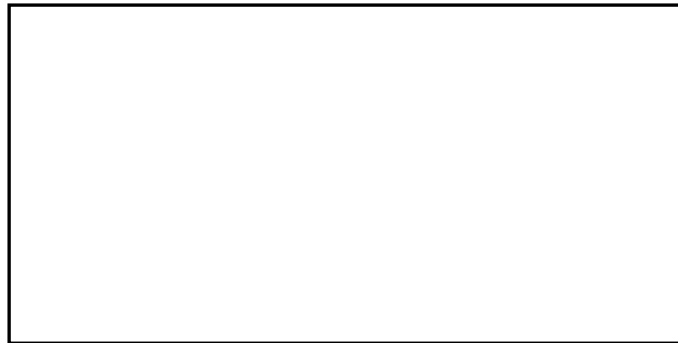
SL 1

C.   Dovetail Joint

SL 1

29.	Describe the easiest way to check for squaring.

_____

_____

_____	| **SL 2** |

_____

_____

_____

30.	Explain **TWO** ways to remove the roughness on timber.

_____

_____

_____	| **SL 3** |

_____

_____

_____

_____

_____

_____

31.	List **TWO** ways you can use to remove any hammer marks on a timber.

A.	_____

	_____

	_____	| **SL 2** |

B.	_____

	_____

	_____

32.	Describe why we have to measure twice before we cut a timber.

_____

_____	| **SL 2** |

_____

_____

_____

_____

33. Identify and describe **ONE** way (method/material) that can be used to fasten timber.

_____

_____

_____

_____

_____

_____

SL 2

34. Convert the following measurements into metric or imperial measurements.

A. Convert inches and feet into millimetres.

2″ x 6″ x 20′ = _____ mm

SL 4

B. Convert millimetres into inches.

100mm = _____inches

C. Convert Feet into millimetres.

2′ = _____ mm

35.
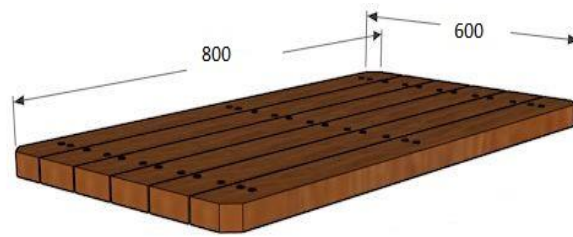
Aspects	Quantity	Thickness	Width	Length	Total linear meters

SL 3

36. The total cost for a 50mm x 100mm x 1000mm is $25. Calculate the total cost of materials spent on the tabletop mentioned in Question 35.

SL 4

37.   List **TWO** technologies that you have used to make your work easier in the workshop.

	SL 2

A. _____

B. _____

38.   Explain the advantage of technologies to our everyday work.

_____
_____
_____

	SL 3

_____
_____
_____
_____
_____
_____
_____

STUDENT EDUCATION NUMBER

SNJSC DESIGN TECHNOLOGY

2023

(For Scorers only)

STRANDS		Weighting	Scores	Check Scorer	AED Check
STRAND 1	DESIGN PROCESS	25			
STRAND 2	DRAWING	15			
STRAND 3	TOOLS	15			
STRAND 4	MATERIALS	15			
STRAND 5	PROCESS	25			
STRAND 6	TECHNOLOGY	5			
TOTAL		100			