



STUDENT EDUCATION NUMBER									

MINISTRY OF EDUCATION AND CULTURE

## Samoa Secondary Leaving Certificate

# AGRICULTURAL SCIENCE

# 2025

## 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 space, ask the Supervisor for extra paper. 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		Page	Time (min)	Weighting
STRAND 1	AGRICULTURE	2-3	14	8
STRAND 2	SOILS	4-5	18	10
STRAND 3	FARM MANAGEMENT, ECONOMICS AND MARKETING	6-9	36	20
STRAND 4	CROP PRODUCTION	10-15	44	24
STRAND 5	ANIMAL PRODUCTION	16-22	54	30
STRAND 6	TOOLS, EQUIPMENT AND FACILITIES	23-24	14	8
TOTAL			180	100

Check that this booklet contains pages 2 - 25 in the correct order and that none of these pages are blank.

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

Use Figure 1 below to answer Questions 1 to 4.

**Figure 1:** An Ecosystem



Source: Getty images

For Questions 1 and 2, choose and write the LETTER of the correct answer in the box provided.

1. A producer in the ecosystem shown in Figure 1 is:

- A. soil.
- B. hens.
- C. chicks.
- D. pasture.

SL 1

2. Chickens are raised as;

- A. free range.
- B. mixed farming.
- C. indoor chicken.
- D. indoor and free range farming.

SL 1

3. Describe **ONE** characteristic of the chicken farm shown in Figure 1.

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SL 2



Study Figure 2 given below and answer Questions 5 to 8.

**Figure 2: Soil Conservation**



Source: Getty images

For Question 5, choose and write the LETTER of the correct answer in the box provided.

5. What is the soil conservation method shown in Figure 2?

- A. Terracing
- B. Transplanting
- C. Planting trees
- D. Contour planting

SL 1

6. Give **TWO** soil biological properties the activity in Figure 2 will improve.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

SL 2

7. The soil in Figure 2 originates from volcanic soil. Discuss how volcanic soils are formed.

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SL 3



Study Figure 3 and answer Questions 9 to 12.

**Figure 3:** Tractor on a mixed crop farm



Source: Getty images

For Questions 9 and 10, choose and write the LETTER of the correct answer in the box provided.

9. A human resource in Figure 3 is the;

- A. tractor.
- B. taamu.
- C. coconut.
- D. tractor operator.

SL 1

10. Keeping records of the number of coconuts collected is essential for;

- A. fuel.
- B. planting.
- C. managing farm revenue.
- D. calculating number of trees.

SL 1

11. Describe the role of record keeping in the management of the mixed farm in Figure 3.

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SL 2



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Study Figure 4 and answer Question 15.

**Figure 4:** Taro sales



Source: Getty images

15. Describe the post-harvest handling steps of taro for export to New Zealand.

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SL 2

Study Figure 5 and answer Question 16.

**Figure 5:** Tariff on imported products



Source: Getty images

16. Tariff is a tax or fee on importing products. Describe the price of cabbage if the tariff on imported cabbage seeds went up by ten per cent (10%).

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SL 2

17. Describe the marketing role of the “Samoa Export Authority.”

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Use Figure 6 below to answer Question 18.

**Figure 6: Chinese cabbage**



Source: Getty images

18. Chinese cabbage in Figure 6 is a:

- A. dicot.
- B. layer.
- C. breed.
- D. monocot.

	SL 1

Use Figure 7 below to answer Question 19.

**Figure 7: Biosecurity check**



Source: Getty images

19. Bio security checks keeps our country safe from;

- A. terrorists.
- B. cyclones.
- C. climate change.
- D. pests and diseases.

	SL 1

Use Figure 8 below to answer Question 20.

**Figure 8: Budding**



Source: Getty images

20. Budding is an example of:

- A. jointing.
- B. air layering.
- C. sexual reproduction.
- D. asexual reproduction.

	SL 1

Use Figure 9 below to answer Question 21.

**Figure 9: Black pod disease**



Source: Google search

21. Describe the signs of black pod disease on cocoa.

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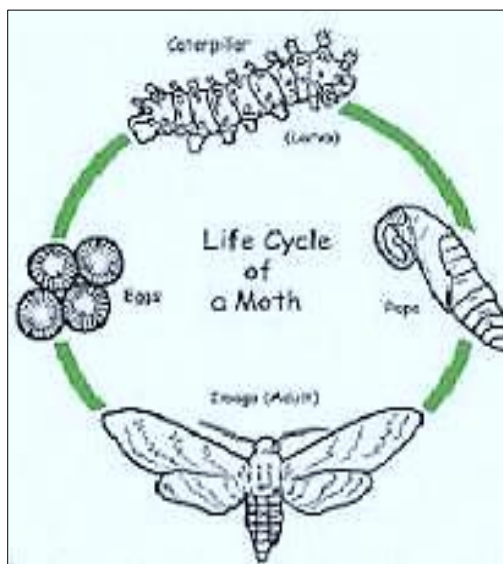
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SL 2

Use Figure 10 below to answer Question 22.

**Figure 10: Life cycle of diamond back moth**



Source: Getty Images

22. Describe the life cycle shown in Figure 10.

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Use Figure 11 below to answer Question 23.

**Figure 11:** Bacterial wilt in tomato



Source: Getty images

23. Describe the signs of Bacterial wilt disease in tomato.

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SL 2

Use Figure 12 below to answer Question 24.

**Figure 12:** Mixed cropping with no weeds



Source: Getty images

24. Explain how growth and development of crops is influenced by weeds.

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SL 3

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Use Figure 13 to answer Questions 25 and 26.

**Figure 13:** Leaf affected by a pest



Source: Getty images

25. Describe how growth of plants is affected by insect pests.

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SL 3

26. Describe the best method of controlling this pest in Figure 13.

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SL 3

Use Figure 14 below to answer Question 27.

**Figure 14:** Fruits and vegetables



Source: Getty images

27. Explain how genetically modified organisms (GMO) can be used to produce these high quality fruits and vegetables.

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SL 3



Use Figure 16 below to answer Questions 29 to 32.

**Figure 16: System of raising chickens**



Source: Getty images

For Question 29, choose and write the LETTER of the correct answer in the box provided.

29. The breed of chicken in the diagram is called a:

- A. Local red.
- B. Moa Samoa.
- C. White leg horn.
- D. Rhode Island Red.

SL 1

30. Describe the characteristics of the chicken in Figure 16.

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SL 2



Use Figure 17 below to answer Question 33.

**Figure 17:** Cattle breed



Source: Getty images

33. The breed of cattle in the diagram is called;

- A. Bull.
- B. Local zebu.
- C. Hereford.
- D. Draught master.

SL 1

Use Figure 18 below to answer Question 34.

**Figure 18:** Calf castration in Cattle



Source: Getty images

34. Describe how castration will improve the growth and development of cattle.

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SL 2



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Use Figure 20 below to answer Question 37.

**Figure 20:** Large white sow feeding piglets



Source: Getty images

37. Describe the characteristics of the large white breed.

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SL 2

38. Name an animal husbandry practice that will protect the sows' nipples and udder from injury during feeding.

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SL 1





Use Figure 22 below to answer Questions 41 and 42.

**Figure 22: Agricultural Equipment**



Source: Getty images

For Question 41, choose and write the LETTER of the correct answer in the box provided.

41. The agricultural tool shown in Figure 22 is a;

- A. oso.
- B. spade.
- C. chainsaw.
- D. mist blower.

SL 1

42. Explain how the tool in Figure 22 is used for planting crops like taro.

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SL 2

Use Figure 23 given below to answer Question 43.

**Figure 23:** Agricultural Chemical – Round-up



Source: Getty images

43. Round-up is a system herbicide. Describe the correct use of Round-up.

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SL 2

Use Figure 24 given below to answer Question 44.

**Figure 24:** Agricultural chemical



Source: Getty images

44. Explain the waiting time before harvesting crops after applying pesticides.

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SL 3

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## SSLC AGRICULTURAL SCIENCE

2025

*(For Scorers only)*

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<b>TOTAL</b>		<b>100</b>			