



# APPLIED VOCATIONAL CERTIFICATE IN AGRIBUSINESS

2025 - 2028



AGRIBUSINESS EDUCATION CENTRE



**GOVERNMENT OF MALTA**  
MINISTRY FOR EDUCATION, SPORT, YOUTH,  
RESEARCH AND INNOVATION  
DIRECTORATE FOR STEM AND VET PROGRAMMES



<https://www.dsvp.mt/subjects/agribusiness/>

# Contents

AVC Agribusiness Syllabus Content .....	3
Applied Vocational Certificate Programme .....	3
Subject Programme .....	3
Programme Learning Outcomes .....	4
Unit Learning Outcomes .....	6
Year 9 – Unit 1 – Introduction to Agribusiness.....	6
Year 10 – Unit 2 – Gardens and Animal care .....	6
Year 11 – Unit 3 – Agricultural Production and Processing .....	6
Assessment.....	7
Programme Certification.....	8
Quality Assurance.....	8
LIST OF TOPICS .....	9
Year 9 – Unit 1 – Introduction to Agribusiness .....	9
Year 10 – Unit 2 – Gardens and Animal care.....	9
Year 11 – Unit 3 – Agricultural Production and Processing.....	9
ASSESSMENT CRITERIA.....	10
TEACHERS’ PACK SUPPLEMENT .....	33
RUBRIC FOR ASSESSMENT CRITERIA .....	34
Year 9 .....	34
Year 10.....	45
Year 11.....	55
ASSIGNMENT BRIEF FRONTSHEET .....	60
ASSIGNMENT BRIEF EXEMPLAR .....	62
OBSERVATION SHEET EXEMPLAR .....	70
SAMPLE CONTROLLED ASESSMENT .....	72
WRITTEN PAPER.....	73
PRACTICAL STUDENTS’ SAMPLE PAPER.....	77
SAMPLE PRACTICAL ASSESSMENT GUIDELINES FOR TEACHERS .....	78
SAMPLE CONTROLLED ASSESSMENT MARKING SCHEME .....	79
SAMPLE CONTROLLED ASSESSMENT OBSERVATION SHEET .....	81
SELF-REFLECTION JOURNAL TEMPLATE.....	83
MARKING SCHEME FOR SELF-EVALUATION EXERCISE – AVC AGRIBUSINESS .....	111
ANNEXE A – UNIT DISTRIBUTION PLAN TEMPLATE .....	112
ANNEXE B - MINIMUM RESOURCES TO OFFER SUBJECT WITHIN SCHOOLS.....	114



# AVC Agribusiness Syllabus Content

## Applied Vocational Certificate Programme

The Applied Vocational Certificate (AVC) programme is designed to emphasize the practical application of vocational subjects, providing students with hands-on experience directly related to the workplace. This programme is aligned with the Malta Qualifications Framework (MQF) and offers a final certification at MQF Level 3, with exit points at MQF Levels 1 and 2. To earn the final certificate, candidates must complete all three units over the secondary cycle and meet the requirements for coursework and controlled assessments as outlined in the specific subject syllabi. The AVC programme focuses on equipping candidates with both theoretical knowledge and practical skills relevant to specific industries, preparing them for future employability or education. This skills-based approach ensures that students develop the competencies necessary for the workforce while also providing a clear pathway for academic progression. The programme supports continuous learning, with opportunities to advance to post-secondary institutions that offer courses at MQF Levels 1-3, and potentially even higher, such as MQF Level 4. Recognized and accredited by various educational institutions, the AVC programme represents a vital step in the lifelong learning journey, aligning with both industry needs and educational standards.

Spanning over three scholastic years (Years 9, 10 and 11) and comprising 10 credits, the AVC programme fosters the development of technical and vocational skills in specific industries. This structure supports the holistic growth of candidates, preparing them not only for future employment but also for future academic pursuits in line with this policy's objectives and the relevant subject syllabi.

## Subject Programme

The AVC Agribusiness programme is split into 3 units where many areas of the Agribusiness sector are studied within each unit. This format contributes to a spiral study programme which allows students to mature in the subject, over the course of the 3 years studying the subject, as well as it permits to expose learners to a broader approach and taste as many different topics as possible. The units are split as per list below.

*Year 9 – Unit 1 - Introduction to Agribusiness – consists introductory plant and crop production. Basic fish and pet care. This unit also takes into consideration health and safety.*

*Year 10 – Unit 2 - Gardens and animal care – consists of basic gardening and landscaping. Work on Animal health and grooming is done together with basic aquascaping. Students will be introduced to animal husbandry (poultry) and apiculture.*

*Year 11 – Unit 3 - Agricultural production and processing – here the subject focuses the cottage industry as a result of activities done in fields, greenhouses and rabbitries.*

**Class activities involved:** Work involved with farm animals, fish and plants. Processing and preparation of agricultural products. Caring and breeding of animals. Lots of group work. Presentations and discussions.

**Homework assigned:** Consolidation exercises. Part of an assignment may be given as HW.

## Programme Learning Outcomes

**Knowledge** – at the end of the module the learner will have acquired the practical and theoretical understanding to:

- Recite given procedures for basic plant production.
- Explain the importance of following given procedures for basic plant production.
- Explain given propagation techniques.
- Recite the application for specific plant growth media.
- Explain procedures related to the upkeep of given plants.
- List horticultural tools.
- Describe the correct and safe use of horticultural tools.
- List various irrigation tubing and fittings used in irrigation.
- Explain procedures utilized in setting up irrigation systems.
- Explain the various procedures involved in landscaping.
- Recite given fertilizer application methods.
- Explain procedure to use in case of equipment failure.
- Recite given health and safety procedures whilst using equipment.
- Explain given elements associated with meeting the basic needs of given pets.
- Explain critical given elements one should look for to determine the overall well-being of given animals.
- Explain the 5 freedoms associated with rearing of animals.
- List the proper feeds, feeding equipment and drinking equipment used in rearing animals for food production.
- Describe good practices in hygiene and bio-security measures on a farm.
- Recall processes involved in the production of given new livestock.
- Explain the given procedure to grow out livestock to given life stages.
- Recite how given veterinary medicinal products are administered.
- Describe the method used in conducting a basic veterinary health assessment for given animals.
- Recall protocols used to maintain animal grooming tools and equipment.
- Explain given methods involved to conduct introductory animal grooming tasks.
- Recite main elements of given checklist associated with maintaining a healthy fish tank.
- Explain main characteristics to ensure maintaining a healthy fish tank.
- List aquarist equipment required for a fish tank.
- Recite the tools and materials required to carry out aquascaping tasks.
- Recite the components of a beehive.
- List the required tools and PPEs used in apiculture.
- Recite the protocol utilized during a bee-hive inspection.
- List a range of profitable cottage industry products.
- Recite steps involved in producing a given range of cottage industry products.

**Skills** – at the end of the module the learner will have gained the expertise to:

- Practice following given procedures for basic plant production.
- Demonstrate ability to propagate plants using different methods.
- Demonstrate good practices related to the upkeep of given plants.
- Demonstrate ability in using horticultural tools correctly and safely.

- Practice procedures in setting up given irrigation systems.
- Demonstrate ability to follow procedures involved in landscaping.
- Practice given fertilizer application in a controlled environment.
- Practice safe upkeep of equipment and related monitoring processes.
- Identify the basic needs of given pets.
- Practice tasks associated with meeting the basic needs of given in a controlled environment.
- Demonstrate good practice related to proper feeds, feeding equipment and drinking equipment used in rearing animals for food production in a controlled environment.
- Demonstrate good practice in hygiene and bio-security measures on a farm.
- Demonstrate ability to produce new livestock in a controlled environment.
- Demonstrate ability to grow out livestock to given life stages in a controlled environment.
- Demonstrate ability to plan and conduct a commercial rabbit breeding programme in a controlled environment.
- Administer the required, given medicinal products in animal husbandry in a controlled environment.
- Conduct a basic health assessment for given animals in a controlled environment.
- Demonstrate ability to maintain animal grooming tools and equipment.
- Demonstrate ability to conduct introductory animal grooming tasks within a controlled environment.
- Demonstrate ability to maintain a healthy fish tank in a controlled environment.
- Show proficiency in using various aquarist equipment required for a given fish tank.
- Utilize the tools and materials necessary to carry out aquascaping tasks in a controlled environment.
- Demonstrate ability to set-up a beehive.
- Demonstrate ability to conduct introductory apicultural tasks within a controlled environment.
- Demonstrate ability to select a range of viable cottage industry products.
- Practice steps involved in producing a range of cottage industry products.

**Responsibility and Autonomy** – at the end of the module the learner will have acquired the responsibility and autonomy to:

- Demonstrate responsibility by adhering to appropriate given horticultural techniques.
- Demonstrate responsibility by adhering to given health and safety protocol.
- Demonstrate ethical responsibility appreciation of nature and animal life.
- Demonstrate responsibility to maintain the animal 5 freedoms.
- Demonstrate ability to work effectively in a team on given tasks.
- Demonstrate responsibility to adhere to a farm bio-security protocol.
- Demonstrate autonomy to produce a value-added cottage industry product.
- Demonstrate ability to reflect on one's work and commitment to continuous improvement.

## Unit Learning Outcomes

### Year 9 – Unit 1 – Introduction to Agribusiness

Learning Outcome 1: I can follow procedures for basic plant production.

Learning Outcome 2: I can propagate plants using different methods.

Learning Outcome 3: I can undertake proper fish keeping tasks to maintain a healthy fish tank.

Learning Outcome 4: I can meet the basic needs of an avian and a mammalian pet.

### Year 10 – Unit 2 – Gardens and Animal care

Learning Outcome 5: I can undertake tasks in gardening and landscaping under supervision.

Learning Outcome 6: I can fully set-up and maintain an aquarium.

Learning Outcome 7: I can conduct tasks involving pet health and grooming under supervision.

Learning Outcome 8: I can conduct introductory tasks in Apiculture.

Learning Outcome 9: I can follow instructions to conduct tasks required for poultry farming.

### Year 11 – Unit 3 – Agricultural Production and Processing

Learning Outcome 10: I can produce a number of cottage industry products.

Learning Outcome 11: I can produce a range of agricultural crops.

Learning Outcome 12: I can follow instructions to conduct tasks required for rabbit farming.

## Assessment

As part of student assessment, during each year of studying the subject, a minimum of 2 assignments as part of teacher set assessment and a controlled assignment that is centrally set will be provided. Additionally, each practical task indicated within the list of assessment criteria will be followed by filling of a self-reflection sheet (see teachers' pack supplement). All mentioned tasks are considered as coursework and all students should do their utmost to complete all tasks satisfactorily.

Year	Teacher set assignments	Controlled assignments	Self -reflection journal
9	70 – 90% of Yr9 marks	10 – 30% of Yr9 marks	5% of year 11 marks
10	70 – 90% of Yr10 marks	10 – 30% of Yr10 marks	5% of year 11 marks
11	50 – 70% of Yr11 marks	10 – 30% of Yr11 marks	10% of year 11 marks

Due to a 100% coursework-based assessment, the role of Internal Verification and of Moderation is indispensable and hence, each assignment brief shall be accompanied by an assessment front sheet (see teachers' pack supplement) and a rubric or a detailed marking scheme. All coursework assignment briefs, front sheets and rubrics and/or marking scheme shall be internally verified before the assignment is distributed to candidates. This importance is being extended to marking, including, the self-evaluation journal where all marks will be internally verified prior to publishing. Despite the self-evaluation component being cumulative for Year 11 marks only, correction and publishing of marks **MUST** be completed within school year corresponding the practical assessment criteria and marks to be recorded in school's marks database. This whole assessment process will be documented within the Agribusiness year cohort subject file in preparation for moderation.

## Programme Certification

Upon completion of the three-year programme, candidates will receive a certificate and a certificate supplement indicating the MQF Level achieved. Each applied vocational subject within the AVC programme is structured to be qualified at MQF Level 3, with possible exit points at MQF Level 2 or MQF Level 1. The final qualification level depends on the total marks obtained by the candidate over the three years (with a maximum of 300 marks) as indicated in the table below.

Award	Marks throughout the Subject	Grade
MQF Level 3	270 – 300	1
	240 – 269	2
	210 – 239	3
	180 – 209	4
	150 – 179	5
MQF Level 2	120 – 149	6
	90 – 119	7
MQF Level 1	60 – 89	8
	0 – 59	Fail

Candidates who are absent for an entire year of the programme can qualify up to a maximum of MQF Level 2, while those absent for two full years can qualify up to a maximum of MQF Level 1.

## Quality Assurance

Assessment is a fundamental component of the learning process. It provides candidates with feedback on their progress and achievements while adhering to key standards of reliability, validity, and fairness. To maintain these standards, it is crucial to follow established rules and procedures. The assessment guidelines ensure that all evaluations are:

- Aligned with the appropriate standards, quality, and level.
- Fair and equitable to all students.
- Valid and reliable.

In order to ensure quality, assignment briefs and assessment decisions undergo internal verification by the designated internal verifier. This process ensures that assessments align with the intended learning outcomes and comply with established policy procedures. Furthermore, moderation will be conducted each academic year by moderators that will evaluate candidates work based on a specified rubric and moderation criteria ensuring that work has been fairly, accurately and consistently graded. During both internal verification and moderation, candidates marks are subject to change.



# LIST OF TOPICS

## Year 9 – Unit 1 – Introduction to Agribusiness

Topic 1: Follow procedures for basic plant production.

Topic 2: Propagate plants using different methods.

Topic 3: Undertake proper fish keeping tasks to maintain a healthy fish tank.

Topic 4: Meet the basic needs of an avian and a mammalian pet.

## Year 10 – Unit 2 – Gardens and Animal care

Topic 5: Gardening and landscaping.

Topic 6: Setting up an aquarium.

Topic 7: Petcare.

Topic 8: Introductory Apiculture.

Topic 9: Poultry farming.

## Year 11 – Unit 3 – Agricultural Production and Processing

Topic 10: Cottage industry production.

Topic 11: Crop production.

Topic 12: Rabbit farming.



# Assessment Criteria



# YEAR 9 ASSESSMENT

## CRITERIA



Topic 1:  
Follow procedures  
for basic plant  
production.

Topic 2:  
Propagate plants  
using different  
methods.

Topic 3:  
Undertake proper  
fish keeping tasks  
to maintain a  
healthy fish tank  
(controlled).

Topic 4: Meet  
the basic needs of  
an avian and a  
mammalian pet.



## Topic 1: Follow procedures for basic plant production. (24 marks)

<b>K1 Recognise tools, equipment, PPEs and safety signs utilised within an Agribusiness setting.</b>			<b>4 marks</b>
PART A	Sub Criterion	Identify ONE tool and ONE piece of personal protective equipment that are used in an agribusiness enterprise.	Marks Part A
	Content	Tools: hoes, rake, spade, pocketknife, dibber, pruning shears, saw, hedge shears. PPEs: safety shoes, wellingtons, garden gloves, safety goggles, respirator, nitrile gloves, hazmat suit, sun hat.	1
PART B	Sub Criterion	Match FOUR pieces of personal protective equipment to their functions.	Marks Part B
	Content	Refer to Part A	1
PART C	Sub Criterion	Recognise FOUR Health and Safety signs used in agricultural activity.	Marks Part C
	Content	Health and Safety signage: flammable, corrosive, environmental hazard, irritant, toxic, health hazard.	2
<b>K2 Discuss the use of various irrigation fittings and tubing diameters used in an irrigation system.</b>			<b>4 marks</b>
PART A	Sub Criterion	Identify ONE irrigation fitting and ONE irrigation emitter.	Marks Part A
	Content	Irrigation fittings: Socket, Tee, Elbow, End cap, Gromet ball-valve, Threaded ball-valve, Gate valve, Stop-cock. Emitters: Drip emitter, drip tape, drip tubing, agricultural sprinkler, garden sprinkler.	1
PART B	Sub Criterion	Match <b>FOUR</b> irrigation fittings to their application.	Marks Part B
	Content	Refer to Part A	1
PART C	Sub Criterion	Discuss why different tubing diameters are normally used in an irrigation system.	Marks Part C
	Content	Open ended criterion.	2
<b>C1 Explain preventive measures required for maintaining a safe work environment and how to practice basic first aid.</b>			<b>6 marks</b>
PART A	Sub Criterion	Outline TWO preventive measures required for maintaining a safe work environment in a horticultural enterprise.	Marks Part A
	Content	Any <b>TWO</b> preventive measures.	2
PART B	Sub Criterion	Describe the use of TWO items that should be present in a First Aid box.	Marks Part B
	Content	First Aid box items: sterile adhesive dressings, triangular bandages, safety pins, sterile unmedicated dressings, sterile eye wash, surgical gloves, roller bandages, personal protection, shield for artificial breathing, gauze pads, scissors.	2
PART C	Sub Criterion	Explain ways of dealing with ONE given injury.	Marks Part C
	Content	<ul style="list-style-type: none"> <li>Dealing with injuries:</li> <li>Burn: cool burn; apply sterile dressing,</li> <li>Cut: apply pressure on the area; apply sterile dressing,</li> <li>Poisoning: notice symptoms; try to identify poison,</li> <li>Electric shock: do not touch person; if possible, turn off source of electricity,</li> <li>Heat stroke: take reading of body temperature; apply cool water,</li> <li>Eye irritation: avoid rubbing eyes; flush with cool water.</li> </ul>	2

<b>A1 Practice work to successfully grow a full row of plants from seed to maturity.</b>			<b>10 marks</b>
<b>PART A</b>	Sub Criterion	Form a straight ridge with a furrow on each side in soil using appropriate tools and PPEs.	Marks Part A
	Content	<p><u>Tools:</u> Hoe and/or shovel hoe and/or fork hoe and/or stringline.</p> <p><i>NB: Furrow needs to be straight and at least 5m long. Marking is to be awarded uniformly per bullet: Correct tools, Correct use of tools, Exemplary work.</i></p>	3
<b>PART B</b>	Sub Criterion	Practice routine work that is required in a field or garden.	Marks Part B
	Content	<p>Routine work: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.</p> <p><i>NB: Award 1 mark for any THREE tasks from the above in which student demonstrates proper acquisition of skill.</i></p>	3
<b>PART C</b>	Sub Criterion	Successfully grow a tray of seedlings.	Marks Part C
	Content	<p>Marking is to be awarded uniformly per acquisition of skill:</p> <ul style="list-style-type: none"> <li>- Filling tray with given medium and seeding appropriately.</li> <li>- Topping tray and irrigating appropriately.</li> <li>- Production of mature seedlings with a success rate of not less than 50%.</li> <li>- Production of mature seedlings with a success rate of not less than 80%.</li> </ul> <p><i>NB: Tray to be placed in appropriate location with appropriate conditions. Otherwise, all marks for this criterion will be lost.</i></p>	4
<p><i>NB: All THREE tasks must be conducive to the production of the same full row (min. 5m) of plants. Not using all PPEs will result in loss of all marks and this protocol is to proceed throughout the programme. It is important that seedlings are transplanted upon maturity since overgrown seedlings should be discarded.</i></p>			



## Topic 2: Propagate plants using different methods. (22 marks)

<b>K3 Describe the processes involved in different propagation techniques.</b>			<b>4 marks</b>
PART A	Sub Criterion	Mention the TWO types of germination.	Marks Part A
	Content	Types of germination: Epigeal, Hypogeal.	1
PART B	Sub Criterion	Outline TWO conditions required for optimum propagation of plants.	Marks Part B
	Content	Conditions for optimum plant propagation: Sheltering, water availability (assuming water is of good quality), temperature, humidity, free from pathogens and pests, suitable growing medium.	1
PART C	Sub Criterion	Describe TWO propagation techniques used for different plants.	Marks Part C
	Content	Propagation of plants: Seeding, stem cutting, stem tuber cutting, rhizome cutting, grafting, layering, runners, bulb, leaf.	2
<b>K4 Describe the processes involved in different propagation techniques.</b>			<b>4 marks</b>
PART A	Sub Criterion	List TWO types of media used for plant propagation and growth.	Marks Part A
	Content	Media: peat, compost, coconut coir, soil, expanded clay, rockwool®, vermiculite, perlite, horticultural sand.	1
PART B	Sub Criterion	State suitable growth media for <b>TWO</b> different applications, applied to a specific example, in horticulture.	Marks Part B
	Content	Applications: Open field production, Production of seedlings, Potting, Hydroponics.	1
PART C	Sub Criterion	List ONE advantage and <b>ONE</b> disadvantage for <b>TWO</b> given growth media.	Marks Part C
	Content	Advantages and disadvantages: Water drainage, Pathogen free, Pest free, Nutrient holding capacity.	2
<b>K5 Describe processes and benefits of grafting plants.</b>			<b>4 marks</b>
PART A	Sub Criterion	List <b>TWO</b> tools and materials required to graft a plant.	Marks Part A
	Content	Tools and materials: grafting knife, pruning saw, grafting tape, grafting paint, grafting clips, secateurs, Healthy rootstock and scion, Sanitation equipment.	1
PART B	Sub Criterion	Mention <b>TWO</b> considerations required to graft a plant.	Marks Part B
	Content	Considerations: <ul style="list-style-type: none"> <li>- suitable season for plant of choice</li> <li>- correct match of scion and root stock</li> <li>- suitable grafting technique for plant of choice</li> </ul>	1
PART C	Sub Criterion	Describe <b>TWO</b> benefits of grafted plants.	Marks Part C
	Content	Benefits of grafted plants: <ul style="list-style-type: none"> <li>- more vigorous growth</li> <li>- can be replicated</li> <li>- known performance (clone)</li> <li>- used to produce plants that thrive in specific environmental conditions.</li> </ul>	2

<b>A2 Grow a number of cuttings by following the correct procedures.</b>			<b>10 marks</b>
<b>PART A</b>	<b>Sub Criterion</b>	Use the correct tools and procedure to take viable cuttings.	<b>Marks Part A</b>
	<b>Content</b>	<p>Marking is to be awarded uniformly per acquisition of skill:</p> <ul style="list-style-type: none"> <li>- Sanitization of tools</li> <li>- Proper utilisation of tools.</li> <li>- Taking of correct cuttings from a healthy mother plant.</li> </ul>	<b>3</b>
<b>PART B</b>	<b>Sub Criterion</b>	Use the correct procedure to plant a number of cuttings.	<b>Marks Part B</b>
	<b>Content</b>	<p>Marking is to be awarded uniformly per acquisition of skill:</p> <ul style="list-style-type: none"> <li>- Select the appropriate container according to the type of cutting.</li> <li>- Select the appropriate media according to the type of cutting.</li> <li>- Correct orientation of cutting.</li> </ul> <p><i>NB: A minimum of 10 cuttings per student is suggested.</i></p>	<b>3</b>
<b>PART C</b>	<b>Sub Criterion</b>	Successfully grow a number of cuttings.	<b>Marks Part C</b>
	<b>Content</b>	<p>Marking is to be awarded uniformly per acquisition of skill:</p> <ul style="list-style-type: none"> <li>- Fill container with media and cutting as required for specific plant.</li> <li>- Regular watering as required for specific plant.</li> <li>- Production of new plant via cutting with a success rate of not less than 50%.</li> <li>- Production of new plant via cutting with a success rate of not less than 80%.</li> </ul>	<b>4</b>

### Topic 3: Undertake proper fish keeping tasks to maintain a healthy fish tank. (20 marks)

#### CONTROLLED ASSESMENT CRITERIA

**NB: All of Topic 3 assessment criteria (K6, C2 and A3) will be assessed through a centrally provided controlled task. Information about this task will be provided during the scholastic year through the Education Assessment Unit (EAU). Schools do not need to produce assessment material for Topic 3.**

<b>K6 Outline fish species and their habitats in relation to water parameters.</b>			<b>4 marks</b>
PART A	Sub Criterion	Match <b>FOUR</b> fish species to their respective habitat.	Marks Part A
	Content	Fish species: koi, goldfish, African cichlids, angel fish, mollies, guppies, tetras, clown fish, sea bream.	1
PART B	Sub Criterion	List <b>TWO</b> water parameters that should be monitored to keep a healthy fish tank.	Marks Part B
	Content	Water parameters: ammonia, nitrites, nitrates, pH, hardness, phosphates, salinity.	1
PART C	Sub Criterion	Outline <b>TWO</b> fish habitats in relation to water parameters.	Marks Part C
	Content	Fish habitats: cold fresh water, tropical planted fresh water, tropical stone-scape fresh water, brackish, marine Mediterranean, marine tropical.	2
<b>C2 Discuss the importance of routine work according to aquarium size and décor.</b>			<b>6 marks</b>
PART A	Sub Criterion	Justify the size of a given aquarium for <b>ONE</b> given fish species.	Marks Part A
	Content	Justification based on <b>TWO</b> points from: Size or fish <b>and/or</b> Aggression of fish species <b>and/or</b> Fish morphology <b>and/or</b> Species swimming/schooling pattern.	2
PART B	Sub Criterion	Explain <b>TWO</b> benefits of water change of a fish tank.	Marks Part B
	Content	Benefits: reduction of pollutants, replenish trace minerals, control water clarity, removal of debris.	2
PART C	Sub Criterion	Discuss the importance of ONE aquarium décor item in relation to fish health of a given species.	Marks Part C
	Content	Décor items: Substrate, Rocks, Plants, Caves.	2
<b>A3 Conduct routine aquarist tasks.</b>			<b>10 marks</b>
PART A	Sub Criterion	Give the right quantity of the right feed to fish in a running fish tank.	Marks Part A
	Content	<ul style="list-style-type: none"> <li>- Selection of correct feed for given fish tank.</li> <li>- Correct amount of fish feed.</li> <li>- Proper feeding technique.</li> </ul>	3
PART B	Sub Criterion	Record water parameters for a given fish tank.	Marks Part B
	Content	<u>Water parameters:</u> Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.	3
PART C	Sub Criterion	Conduct a water change for a running fish tank.	Marks Part C
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"> <li>- Remove a suitable amount of water using appropriate tools.</li> <li>- Measure and dose the correct water additive.</li> <li>- Top-up water to appropriate level.</li> <li>- After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</li> </ul>	4

**NB: Throughout Application, students must be wearing non-slip shoes, tie back any long hair and not be wearing any garments that can hang in the water. Teacher must ensure that before students do any work, electrical supply to fish tank is switched off and returned only after water change. Any students deviating from the above will not be allowed to conduct practical tasks and not awarded any marks for this practical.**

#### Topic 4: Meet the basic needs of an avian and a mammalian pet. (34 marks)

<b>K7 Outline accommodation and diets for different mammalian pets.</b>			<b>4 marks</b>
PART A	Sub Criterion	List <b>TWO</b> common mammalian pets kept in Malta.	Marks Part A
	Content	Mammalian pets: dogs, cats, rabbits, horses, guinea pigs, hamsters	1
PART B	Sub Criterion	Identify <b>TWO</b> types of accommodation for common mammalian pets in Malta.	Marks Part B
	Content	Accommodations: kennels, dog/cat transport cage, rodent cages, hutches, stables.	1
PART C	Sub Criterion	Outline a diet for a mammalian pet through <b>ONE</b> life stage.	Marks Part C
	Content	Life stages: new-born, weaner, junior, adult, senior.	2
<b>K8 Outline accommodation and diets for different avian pets.</b>			<b>4 marks</b>
PART A	Sub Criterion	List <b>TWO</b> common avian pets kept in Malta.	Marks Part A
	Content	Avian pets: parakeets and parrots, doves and pigeons, finches and true finches, fancy poultry and game, birds of prey.	1
PART B	Sub Criterion	Identify <b>TWO</b> types of accommodation for common avian pets in Malta.	Marks Part B
	Content	Accommodations: bird cages, parrot/ parakeet cages, aviaries, coops, dove/pigeon pens and lofts.	1
PART C	Sub Criterion	Select the appropriate feed for FOUR given avian pets.	Marks Part C
	Content	Open ended criterion.	2
<b>C3 Discuss criteria to be considered in order to maintain ideal pet health.</b>			<b>6 marks</b>
PART A	Sub Criterion	Indicate the ideal environmental conditions required to keep a given mammalian pet and a given avian pet.	Marks Part A
	Content	Environmental conditions: Length of day; Temperature; No draft; No stress from other animals.	2
PART B	Sub Criterion	Describe factors that determine the number of a given pet that should be kept in a given cage/housing.	Marks Part B
	Content	Description to be based upon the points: Size of pet; Natural behaviour of pet.	2
PART C	Sub Criterion	Discuss <b>ONE</b> criterion that should be considered when designing a record-keeping sheet for feeding and vaccination of a given pet.	Marks Part C
	Content	Records: ID(Name), age and breed; Feeds given; Vaccines administered; Dates for entries.	2

**A4 Conduct routine tasks to keep mammalian pets.****10  
marks**

PART A	Sub Criterion	Clean the cage/housing of a given mammalian pet.	Marks Part A
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"><li>- Cleaning of walls and/or floor and/or wire appropriately.</li><li>- Cleaning of feeders appropriately.</li><li>- Cleaning and replenishment of drinkers appropriately.</li></ul>	3
PART B	Sub Criterion	Give the right quantity of feed to a given mammalian pet according to the given life stage.	Marks Part B
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"><li>- Select suitable food for given pet.</li><li>- Weigh/measure suitable amount of feed.</li><li>- Loading feeder and placing appropriately.</li></ul>	3
PART C	Sub Criterion	Use the correct procedure for handling a given mammalian pet.	Marks Part C
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"><li>- Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily.</li></ul> NB: award 1 mark if student requires assistance from classmate; award 2 marks if student requires no assistance. <ul style="list-style-type: none"><li>- Safe and comfortable handling for candidate.</li></ul> NB: award 1 mark if student handles animal but with limited confidence; award 2 marks if student shows exemplary skill in handling given pet.	4

**A5 Conduct routine tasks to keep avian pets.****10  
marks**

PART A	Sub Criterion	Clean the cage/housing of a given avian pet.	Marks Part A
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"><li>- Cleaning of walls and/or floor and/or wire and/or nest boxes appropriately and when necessary.</li><li>- Cleaning of feeders appropriately.</li><li>- Cleaning and replenishment of drinkers appropriately.</li></ul>	3
PART B	Sub Criterion	Give the right quantity of feed to a given avian pet according to the given life stage.	Marks Part B
	Content	Marking is to be awarded uniformly per acquisition of skill: <ul style="list-style-type: none"><li>- Select suitable food for given pet.</li><li>- Weigh/measure suitable amount of feed.</li><li>- Loading feeder and placing appropriately.</li></ul>	3
PART C	Sub Criterion	Use the correct procedure for installing a nesting box. (4 marks)	Marks Part C
	Content	<ul style="list-style-type: none"><li>- Correct nest box according to bird species</li><li>- Correct positioning of box and secure installation</li><li>- Provision of nesting material.</li></ul>	4



# YEAR 10 ASSESSMENT CRITERIA



**Topic 5:  
Gardening and  
landscaping.**

**Topic 6:  
Setting up an  
aquarium.**

**Topic 7:  
Petcare  
(controlled).**

**Topic 8:  
Introductory  
Apiculture.**

**Topic 9:  
Poultry  
farming.**



### Topic 5: Gardening and landscaping. (27 marks)

<b>K9 Identify sustainable garden types suitable for the Mediterranean climate and corresponding plants.</b>				<b>2 marks</b>
PART A	Sub Criterion	List TWO common sustainable garden types suitable for the Mediterranean climate.		Marks Part A
	Content	Common sustainable garden types for the Mediterranean climate: rock, roof, wall, orchard, xeriscape, herb, Maltese indigenous.		1
PART B	Sub Criterion	Name TWO plants suitable for a given garden type.		Marks Part B
	Content	Refer to Part A		1
<b>K10 Identify the importance of soil nutrients and organic matter.</b>				<b>2 marks</b>
PART A	Sub Criterion	List <b>ONE</b> types of fertiliser and <b>ONE</b> macronutrient.		Marks Part A
	Content	Fertilisers: Manure, slow release, organic, soluble. Macronutrients: N, P, K, Ca, Mg, S.		1
PART B	Sub Criterion	State <b>TWO</b> benefits of organic matter in soil.		Marks Part B
	Content	Benefits of organic matter in the soil bed: improves water holding capacity; improves soil aggregation; increases microbial activity; reduces soil erosion.		1
<b>C4 Complete a sketch of a given garden site with landscaping elements.</b>				<b>6 marks</b>
PART A	Sub Criterion	Illustrate a given sketch of a garden site with plants and other items for a given garden type.		Marks Part A
	Content	Landscaping elements: Plants: trees and shrubs and seasonals Other elements: Ponds and/or water features and/or planters and/or benches and/or gazebos and/or fences etc.		3
PART B	Sub Criterion	Sketch an irrigation system according to given specifications.		Marks Part B
	Content	Simple sketch/line diagram with labelling of irrigation fittings super imposed on <b>copy</b> of garden sketch.		3
<b>A6 Conduct tasks pertaining to landscaping.</b>				<b>8 marks</b>
PART A	Sub Criterion	Transplant a number of plants in a garden area according to a given site.		Marks Part A
	Content	Open ended criterion.		3
PART B	Sub Criterion	Practice techniques for raising soil beds and creating ridges ('konka' + 'gefun') around the plants transplanted in your garden area.		Marks Part B
	Content	Open ended criterion.		2
PART C	Sub Criterion	Lay an irrigation system for your garden area as per given plan.		Marks Part C
	Content	Open ended criterion.		3
<b>A7 Practice routine work that is important for garden upkeep.</b>				<b>9 marks</b>
PART A	Sub Criterion	Maintain a given garden area over a period of time under supervision.		Marks Part A
	Content	NB. Garden area <b>MUST</b> be maintained for a minimum period of SIX weeks.		6
PART B	Sub Criterion	Conduct a given pruning task under supervision.		Marks Part B
	Content	Open ended criterion.		3

## Topic 6: Setting up an aquarium. (12 marks)

<b>K11 List equipment and materials that are commonly utilised in an aquarium.</b>			<b>2 marks</b>
PART A	Sub Criterion	List <b>TWO</b> different pieces of life support/habitat equipment used in an aquarium.	Marks Part A
	Content	Equipment: Internal filter, external filter, air pump, water pump/power head, heater, lighting, chiller.	1
PART B	Sub Criterion	List <b>TWO</b> different décor items used in an aquarium.	Marks Part B
	Content	Décor items: Rocks, gravel, aquarium soil, sand, driftwood, synthetic plants, live plants.	1
<b>K12 Identify styles, tools and materials relevant to aquascaping.</b>			<b>2 marks</b>
PART A	Sub Criterion	Name <b>TWO</b> aquascaping styles.	Marks Part A
	Content	Aquascaping styles: jungle, biotype, iwagumi, Dutch, Taiwanese, nature.	1
PART B	Sub Criterion	List <b>ONE</b> aquarium maintenance tools/supplies and <b>ONE</b> aquascaping tools/supplies.	Marks Part B
	Content	Maintenance tools/supplies: Gravel cleaner, syphon, test strips/kit, net, dechlorinator solution, glass cleaner. Aquascaping tools: Scissors, tweezers, substrate flattener, algae scraper, fertiliser solution/tabs, glue.	1
<b>A8 Undertake tasks leading to a healthy fish tank that is visually pleasing.</b>			<b>8 marks</b>
PART A	Sub Criterion	Set-up an aquarium with the necessary equipment and décor.	Marks Part A
	Content	Décor: Minimum 2 items Equipment must have a means of: Filtration, water circulation, temperature control, lighting, measuring temperature.	3
PART B	Sub Criterion	Prepare an aquarium to make it suitable to host the given biota.	Marks Part B
	Content	Important tasks: Filling with water, inoculation, water testing, acclimation, introduction of given biota.	2
PART C	Sub Criterion	Maintain an aquarium for a period.	Marks Part C
	Content	Important tasks: Feeding, monitoring of equipment, monitoring of biota, water testing, water changes, cleaning filtration system, trimming of plants, tidying/changing place of décor.  NB: Same tank per student is to be used for assessment purposes. A minimum of <b>THREE</b> entries are required for assessment of this task. Entries <b>MUST</b> be spread over a minimum of 30 days for visible and realistic changes occurring within the tank. It is being assumed that when student is not present, other staff will take over daily routine tasks relevant to tank.	3

## Topic 7: Petcare (21 marks)

### CONTROLLED ASSESMENT CRITERIA

**NB: All of Topic 7 assessment criteria (K13, K14, K15, A9 and A10) will be assessed through a centrally provided controlled task. Information about this task will be provided during the scholastic year through the Education Assessment Unit (EAU). Schools do not need to produce assessment material for Topic 7.**

<b>K13 Recite tools and coat types pertaining to animal grooming.</b>			<b>2 marks</b>
PART A	Sub Criterion	Name <b>TWO</b> basic tools used in animal grooming.	Marks Part A
	Content	Basic tools used in animal grooming: clippers, brushes, furminators, scissors, nail trimmers.	1
PART B	Sub Criterion	List <b>TWO</b> animal coat types.	Marks Part B
	Content	Different coat types: hair, fur, wool, topcoat, under coat.	1

<b>K14 Recall PPEs and tools used for veterinary nursing and animal grooming.</b>			<b>2 marks</b>
PART A	Sub Criterion	Name <b>TWO</b> PPEs utilised in animal grooming and veterinary nursing.	Marks Part A
	Content	PPEs: Surgical mask, nitrile/latex disposable gloves, scrubs, apron, safety glasses, coverall.	1
PART B	Sub Criterion	Name <b>TWO</b> tools/equipment utilised in veterinary nursing.	Marks Part B
	Content	Equipment: Stethoscope, rectal thermometer, scissors, forceps, pen torch, veterinary table.	1

<b>K15 Recite facts relevant to animal diseases and conditions.</b>			<b>4 marks</b>
PART A	Sub Criterion	List <b>ONE</b> common pet health condition <b>OR ONE</b> common pet parasite <b>OR ONE</b> common pet disease and how to treat it.	Marks Part A
	Content	Conditions: Dermatitis, Buck teeth, Sore hocks, Arthritis. Parasites: Intestinal worms, Fleas, Mange, Ear mites. Diseases: Parvo virus, Ear infections, Kidney disease, Cat's flu, Diabetes, Viral haemorrhagic disease, Coccidiosis.	2
PART B	Sub Criterion	List the <b>TWO</b> most important reasons why one should vaccinate an animal.	Marks Part B
	Content	Reasons: prevention of disease; controlling disease transmission.	2

<b>A9 Record results of an animal health check.</b>			<b>4 marks</b>
<b>PART A</b>	Sub Criterion	Conduct a health check for a given animal using basic veterinary nursing equipment.	Marks Part A
	Content	Health checklist: tail, skin, limbs, coat, eyes, nose, ears, paws, teeth.	2
<b>PART B</b>	Sub Criterion	Record the results of an animal health checklist to assess overall health status of a given animal.	Marks Part B
	Content	Records: To be entered in a given health check card with all relevant information.	2

<b>A10 Assist your teacher during an animal grooming activity.</b>			<b>9 marks</b>
<b>PART A</b>	Sub Criterion	Select the correct tools the teacher asks you to prepare.	Marks Part A
	Content	Open ended criterion.	1
<b>PART B</b>	Sub Criterion	Assist in the handling and grooming task following instructions given by your teacher.	Marks Part B
	Content	NB: Task to be done in pairs to assist teacher/farmer/technician under continuous supervision on a mammalian pet. Both students to actively assist during whole grooming task.	6
<b>PART C</b>	Sub Criterion	Maintain grooming tools appropriately following instructions.	Marks Part C
	Content	Maintenance: Clean and sanitise using appropriate suitable methods and materials.	2



## Topic 8: Introductory Apiculture. (18 marks)

<b>K16 Identify the contents of a beehive.</b>			<b>3 marks</b>
PART A	Sub Criterion	List <b>TWO</b> apicultural products.	Marks Part A
	Content	Apicultural products: Honey, wax, pollen, bee bread, propolis, royal jelly, bee colonies.	1
PART B	Sub Criterion	Name <b>TWO</b> roles of a worker bee.	Marks Part B
	Content	Roles: Nurse bees, foragers, guards, builders, undertakers, cleaners.	1
PART C	Sub Criterion	Identify <b>TWO</b> different honeybee castes.	Marks Part C
	Content	Different bees: Queen, worker, drone.	1
<b>K17 Identify apicultural tools and PPEs.</b>			<b>3 marks</b>
PART A	Sub Criterion	Match <b>FOUR</b> apicultural tools or equipment to their use.	Marks Part A
	Content	Apicultural tools and equipment: Hive tool, frame holder, smoker, lighter/matches, smoker fuel, wax foundations, frame wire, wire crimper, bee brush, uncapping knife, honey extractor, honey ripener, wax melter.	1
PART B	Sub Criterion	Name <b>TWO</b> PPEs used whilst working in an apiary.	Marks Part B
	Content	PPEs: Bee suit, bee jacket, bee veil, beekeeper's gloves, boots, powder free nitrile gloves.	1
PART C	Sub Criterion	Identify <b>TWO</b> parts of a beehive.	Marks Part C
	Content	Parts: Bottom board, Brood box, super box, brood frame, super frame, queen excluder, inner cover, feeder, top cover.	1
<b>A11 Practice basic apicultural tasks.</b>			<b>12 marks</b>
PART A	Sub Criterion	Wear the appropriate apicultural PPEs successfully as part of your preparation to access the apiary.	Marks Part A
	Content	Open ended.	2
PART B	Sub Criterion	Set-up a beehive correctly to be able to host a bee colony.	Marks Part B
	Content	Open ended.	2
PART C	Sub Criterion	Light-up a bee smoker safely.	Marks Part C
	Content	Open ended.	2
PART D	Sub Criterion	Follow instructions to conduct a beehive inspection under supervision.	Marks Part D
	Content	Open ended.	6

### Topic 9: Poultry farming. (22 marks)

<b>K18 Identify poultry feeders/drinkers and types.</b>			<b>2 marks</b>
PART A	Sub Criterion	Identify <b>TWO</b> pieces of equipment used in poultry farming.	Marks Part A
	Content	Equipment: Poultry feeder, chick feeder, poultry drinker, nest boxes, incubator, brooder, cages, heat lamp.	1
PART B	Sub Criterion	List <b>TWO</b> types of poultry.	Marks Part B
	Content	Types of poultry: Layers, Broilers, Fancy breeds, Turkeys, ducks, geese, Guinea fowl, Broiler quails.	1
<b>K19 Identify different poultry feeds.</b>			<b>2 marks</b>
PART A	Sub Criterion	Name <b>TWO</b> feeds used from chick to adult in layer hen rearing.	Marks Part A
	Content	Layer feeds: Chick crumbs, layer crumbs, layer pellets, layer mesh.	1
PART B	Sub Criterion	Name <b>TWO</b> feeds used from chick to slaughter in broiler rearing.	Marks Part B
	Content	Broiler feeds: Broiler starter, broiler grower, broiler finisher, corn (for corn fed).	1
<b>K20 Indicate TWO missing steps and TWO missing precautions in the operation of an egg incubator to produce chickens.</b>			<b>4 marks</b>
	Content	<p>Steps:</p> <ol style="list-style-type: none"> <li>1. Collect fertilised eggs and store appropriately.</li> <li>2. Place eggs in incubator for setting.</li> <li>3. Plan and start the incubating period of 21 days.</li> <li>4. Maintain eggs in incubator by daily checking temperature (37.7°C) and humidity.</li> <li>5. Candle on the 7<sup>th</sup> and 14<sup>th</sup> day. Discard any unfertilised or failed eggs.</li> <li>6. Remove the rotator on day 18<sup>th</sup>.</li> <li>7. Place chicks in brooder when hatched.</li> </ol> <p>Precautions:</p> <ol style="list-style-type: none"> <li>1. Ensure parent stock is healthy.</li> <li>2. Ensure good hen to rooster ratio.</li> <li>3. Collect clean and non-deformed eggs.</li> <li>4. Set eggs for incubation in a cool dark place.</li> <li>5. Eggs to be placed in setter at the correct orientation.</li> <li>6. Setter to be allowed to rotate without heating before incubation.</li> <li>7. Calibrate incubator to ensure ideal temperature.</li> <li>8. Incubator to be placed in zone with constant temperature.</li> <li>9. Incubator should not be opened unless necessary.</li> <li>10. Incubator should never run dry.</li> <li>11. Rotator to be removed before hatching phase starts.</li> <li>12. When hatching starts, incubator should not be opened until it is time to transfer to brooder (days 22-23).</li> </ol>	

<b>C5</b>	<b>Explain briefly why any TWO bio-security measures are conducted in the running of a farm.</b>	<b>4 marks</b>
-----------	--	----------------

Content	Bio-security measures: Quarantine new life stock; Administer and record vaccinations regularly; Make use of disinfecting floor mats; Do not share tools and equipment with other farms; Be on the lookout and record signs of illness; Keep tools and equipment clean.
---------	--

<b>C6</b>	<b>Log all activities involved in the production of chicks to pullet stage.</b>	<b>4 marks</b>
-----------	---	----------------

Content	<ul style="list-style-type: none"> <li>- Dated entries</li> <li>- Including all observations</li> <li>- To document both positive and negative outcomes of the process.</li> </ul>
---------	--

<b>A12</b>	<b>Practice tasks involved in the running of layer hens.</b>	<b>6 marks</b>
------------	--	----------------

PART A	Sub Criterion	Collect eggs and store appropriately.	Marks Part A
	Content	In a clean plastic container; Stored in a cool dry place.	2
PART B	Sub Criterion	Clean and disinfect chicken coop including the drinker/feeder system.	Marks Part B
	Content	Make use of manure clamp; Drinkers and feeders to be cleaned and disinfected at least every fortnight.	2
PART C	Sub Criterion	Replenish feeders and drinkers appropriately.	Marks Part C
	Content	Open ended criterion.	2

# YEAR 11 ASSESSMENT

## CRITERIA



Topic 10:  
Cottage Industry  
production  
(controlled).

Topic 11:  
Crop Production.

Topic 12:  
Rabbit Farming



## Topic 10: Cottage Industry Production. (20 marks)

### CONTROLLED ASSESMENT CRITERIA

**NB: All of Topic 10 assessment criteria (K21, K22, C7 and A13) will be assessed through a centrally provided controlled task. Information about this task will be provided during the scholastic year through the Education Assessment Unit (EAU). Schools do not need to produce assessment material for Topic 10.**

<b>K21 Identify cottage industry products and preservation methods.</b>			<b>2 marks</b>
PART A	Sub Criterion	List <b>TWO</b> cottage industry products.	Marks Part A
	Content	Cottage industry products: Jams, chutneys, dried produce, preserves in sugar, preserves in oil, preserves in vinegar, preserves in brine/salt, honey, oil, cheese, wines, liquors, cosmetics.  NB: students are expected to list specific items e.g. strawberry jam.	1
PART B	Sub Criterion	Match <b>FOUR</b> methods of preservation to cottage industry products.	Marks Part B
	Content	Methods of preservation: Salting, drying, fermentation, preserving in vinegar, preserving in oil, preserving in brine, preserving in sugar, candying, smoking.	1
<b>K22 Recall the factors that contribute to costs and labels for a cottage industry product.</b>			<b>2 marks</b>
PART A	Sub Criterion	List <b>TWO</b> items that make part of the cost to produce a cottage industry product.	Marks Part A
	Content	Expenses: Production costs, purchase of ingredients, containers, jars, bottles, packets, labelling, storage.	1
PART B	Sub Criterion	Name <b>TWO</b> items that need to be included on a cottage industry product label.	Marks Part B
	Content	Items to be included on label: Brand, name of product, volume/weight, ingredients, expiry date, lot number.	1
<b>C7 Estimate costings related to cottage industry products.</b>			<b>4 marks</b>
PART A	Sub Criterion	Estimate the costs involved in a given cottage industry product.	Marks Part A
	Content	Estimate of costs include: costs involving production of ingredients; purchase of ingredients that cannot be produced in house (e.g. vinegar and sugar); containers/Jars/packets/bottles; labels; number of hours (man hours); water/electricity/cleaning materials; equipment costs.	2
PART B	Sub Criterion	Determine a price for a given cottage industry product.	Marks Part B
	Content	Open ended criterion.	2



**A13 Produce a range of cottage industry products under supervision.****12  
marks**

PART A	Sub Criterion	Prepare ingredients and containers for the preparation of a range cottage industry products under supervision.	Marks Part A
	Content	Open ended criterion.	2
PART B	Sub Criterion	Process and transfer to suitable packaging a range of cottage industry products under supervision.	Marks Part B
	Content	Open ended criterion.	8
PART C	Sub Criterion	Label a range of cottage industry products under supervision.	Marks Part C
	Content	Open ended criterion.	2

NB:

- Students are required to produce a minimum of **TWO** different products that require different preservation/preparation methods.
- Students are also required to clean and disinfect the working station before labelling.

## Topic 11: Crop Production. (31 marks)

<b>K23 Recall different crops and how to grow them.</b>			<b>3 marks</b>
PART A	Sub Criterion	Match <b>FOUR</b> crop types with crops.	Marks Part A
	Content	Crop types: Tubers, tree fruits, seasonal fruits, leafy, cereals, stem.	1
PART B	Sub Criterion	Match <b>FOUR</b> production methods with crops.	Marks Part B
	Content	Production methods: Open field, greenhouse in soil, hydroponic, aeroponic, aquaponics.	1
PART C	Sub Criterion	Match <b>FOUR</b> propagation techniques with crops.	Marks Part C
	Content	Propagation techniques: Seeding, cutting, bulb, runners, layering, rhizome cutting, grafting, tubers.	1
<b>C8 Make a crop plan for the production of a cottage industry product.</b>			<b>6 marks</b>
PART A	Sub Criterion	Establish a sowing and harvesting calendar required for the production of a range of cottage industry products.	Marks Part A
	Content	NB: Minimum number of different crops given = 4	2
PART B	Sub Criterion	Prepare a list of quantities of consumables required to produce a given number/weight of crops required for the production of a cottage industry product.	Marks Part B
	Content	List of quantities may include: Seeds, growth medium, seed trays, fertiliser, irrigation fittings, irrigation tubing, seedlings etc.	2
PART C	Sub Criterion	Estimate the costings involved in the production of a given number/weight of crops required for the production of a cottage industry product.	Marks Part C
	Content	NB: Pricelist to be supplied by teacher.	2
<b>A14 Produce a range of crops that will be used for the preparation of cottage industry products.</b>			<b>18 marks</b>
PART A	Sub Criterion	Sow/transplant a range of crops that will be used for the preparation of cottage industry products.	Marks Part A
	Content	Tasks: Field preparation, Setup of Irrigation system, Crop Selection, Seed tray preparation, Maintaining Seed Tray, Transplanting to field/greenhouse.	8
PART B	Sub Criterion	Maintain a range of crops until maturity that will be used for the preparation of cottage industry products.	Marks Part B
	Content	Tasks: irrigation of product, inter-row cultivation, de-weeding, observing for pests and diseases, observing for deficiencies and disorders. (minimum 3 crops)	6
PART C	Sub Criterion	Harvest crops that will be used for the preparation of cottage industry products.	Marks Part C
	Content	Tasks: Harvest <b>OWN</b> crop, Cleaning, Grading, Storage.	4
<b>A15 Apply fertiliser following instructions under supervision.</b>			<b>4 marks</b>
NB: All necessary PPEs and safety considerations during this application are mandatory. For assessment purposes, student must be given a set of instructions to prepare and apply fertiliser as well as clean any application apparatus after use. Environmental protection laws will be adhered to.			

## Topic 12: Rabbit farming. (29 marks)

<b>K24 Identify rabbit feeders/drinkers and types.</b>			<b>2 marks</b>
PART A	Sub Criterion	Identify <b>TWO</b> pieces of equipment used in rabbit farming.	Marks Part A
	Content	Equipment: Feeder, nipple drinker, bottle drinker, cages, nest boxes.	1
PART B	Sub Criterion	List <b>TWO</b> common rabbit breeds.	Marks Part B
	Content	Example: New Zealand White, Californian, Rex, Netherland Dwarf, Lop, Lion head, Flemish giant.	1
<b>K25 Identify different rabbit feeds.</b>			<b>2 marks</b>
PART A	Sub Criterion	Name <b>TWO</b> feeds used in commercial rabbit rearing.	Marks Part A
	Content	Commercial feeds: Weaner, grower, maintenance, doe, medicated.	1
PART B	Sub Criterion	Name <b>TWO</b> nutrients found in a commercial rabbit feed.	Marks Part B
	Content	Nutrients: Protein, fats, carbohydrates, minerals, vitamins.	1
<b>K26 Recite aspects of rabbit slaughtering.</b>			<b>3 marks</b>
PART A	Sub Criterion	List <b>TWO</b> methods of rabbit slaughtering.	Marks Part A
	Content	Different methods of rabbit slaughtering: stunning; dislocation; halal; striking.	1
PART B	Sub Criterion	List <b>TWO</b> methods of presenting rabbit meat to the consumer.	Marks Part B
	Content	Presentation methods of rabbit meat: whole carcass; parts; deboned; grounding; product creation (e.g. sausages, burgers, etc).	1
PART C	Sub Criterion	List <b>TWO</b> animal welfare aspects to consider when slaughtering animals.	Marks Part C
	Content	Animal welfare aspects: Remove/Prevent avoidable Excitement, pain and suffering.	1
<b>C9 Prepare a breeding programme calendar for a commercial rabbitry.</b>			<b>4 marks</b>
			Marks
	Content	Calendar parameters: Intensity, date required for slaughter, date of breeding, date of preparation of nesting box, date of weaning, date of changing feed.	
<b>A16 Practice tasks involved in the running of a rabbitry.</b>			<b>9 marks</b>
PART A	Sub Criterion	Remove any debris stuck to the wire and the accessories in cages.	Marks Part A
	Content	Open ended criterion.	3
PART B	Sub Criterion	Clean and disinfect the rabbitry including the drinker/feeder system.	Marks Part B
	Content	Make use of manure clamp; Drinkers and feeders to be cleaned and disinfected at least every fortnight.	4
PART C	Sub Criterion	Replenish feeders and drinkers appropriately.	Marks Part C
	Content	Open ended criterion.	2

<b>A17 Conduct tasks relevant to producing rabbits under supervision.</b>			<b>9 marks</b>
<i>PART A</i>	Sub Criterion	Examine a rabbit to determine its sex and health condition.	Marks Part A
	Content	Open ended.	2
<i>PART B</i>	Sub Criterion	Select a suitable breeding pair of rabbits.	Marks Part B
	Content	Open ended.	1
<i>PART C</i>	Sub Criterion	Follow instructions to carry out tasks required for a rabbit breeding programme.	Marks Part C
	Content	Open ended.	6

# TEACHERS' PACK SUPPLEMENT





# RUBRIC FOR ASSESSMENT CRITERIA

Year 9

## Topic 1: Follow procedures for basic plant production. (24 marks)

K-1	Identify ONE tool and ONE piece of personal protective equipment that are used in an agribusiness enterprise.			
	☐ 0.5 marks		☐ 1 mark	
	Identified either 1 tool <b>or</b> 1 PPE		Identified 1 tool and 1 PPE	
K-1	Match FOUR pieces of personal protective equipment to their functions.			
	☐ 0.25 marks	☐ 0.5 marks	☐ 0.75 marks	☐ 1 mark
	Matched 1 PPE to the correct function.	Matched 2 PPEs to the correct function.	Matched 3 PPEs to the correct function.	Matched 4 PPEs to the correct function.
K-1	Recognise FOUR Health and Safety signs used in agricultural activity.			
	☐ 0.5 marks	☐ 1 mark	☐ 1.5 marks	☐ 2 marks
	Recognises 1 Health and Safety sign.	Recognises 2 Health and Safety signs.	Recognises 3 Health and Safety signs.	Recognises 4 Health and Safety signs.
K-1 total:				
K-2	Identify ONE irrigation fitting and ONE irrigation emitter.			
	☐ 0.5 marks		☐ 1 mark	
	Identified either 1 irrigation fitting <b>or</b> 1 irrigation emitter.		Identified 1 irrigation fitting and 1 irrigation emitter.	
K-2	Match FOUR irrigation fittings to their application.			
	☐ 0.25 marks	☐ 0.5 marks	☐ 0.75 marks	☐ 1 mark
	Matched 1 irrigation fitting to its function	Matched 2 irrigation fittings to their function	Matched 3 irrigation fittings to their function	Matched 4 irrigation fittings to their function
K-2	Discuss why different tubing diameters are normally used in an irrigation system.			
	☐ 0.5 marks	☐ 1 mark	☐ 1.5 marks	☐ 2 marks
	Makes very basic reference to either flow rate <b>or</b> pressure differences.	Makes very basic reference to both flow rate and pressure differences.	Mentions either: <ul style="list-style-type: none"><li>- increased main line diameter results in better flow rate. <b>or</b></li><li>- Irrigation lines with emitters are then reduced in diameter to increase pressure at point.</li></ul>	Mentions both: <ul style="list-style-type: none"><li>- increased main line diameter results in better flow rate.</li><li>- Irrigation lines with emitters are then reduced in diameter to increase pressure at point.</li></ul>
K-2 total:				

<b>C-1</b>	Outline TWO preventive measures required for maintaining a safe work environment in a horticultural enterprise.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Makes simple reference to 1 preventive measure.	Makes simple reference to 2 preventive measures.	Outlines well 1 preventive measure.	Outlines well 2 preventive measures.
<b>C-2</b>	Describe the use of TWO items that should be present in a First Aid box.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Makes very basic description of 1 item.	Makes very basic description of 2 items.	Describes in detail 1 item.	Describes in detail 2 items.
<b>C-1</b>	Explain ways of dealing with ONE given injury.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Describes very basically how to deal with an injury but leaves some steps in the process missing.	Describes very basically how to deal with an injury in at least a 2-step process.	Describes in detail how to deal with an injury but leaves some steps in the process missing.	Describes in detail how to deal with an injury in at least a 2-step process.
<b>C-1 total:</b>				
<b>A-1</b>	Form a straight ridge with a furrow on each side in soil using appropriate tools and PPEs.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Forms a non-uniform ridge.</p> <p>Forms furrows on each side of the ridge but are non-uniform.</p> <p>Uses the appropriate tools.</p> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Forms a ridge that is not straight.</p> <p>Forms furrows on each side of the ridge but are non-uniform.</p> <p>Uses the appropriate tools.</p> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Forms a neat and straight ridge.</p> <p>Forms furrows on each side of the ridge but are non-uniform.</p> <p>Uses the appropriate tools.</p> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Forms a neat and straight ridge.</p> <p>Forms neat and straight furrows on each side of the ridge.</p> <p>Uses the appropriate tools.</p> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>

<b>A-1</b>	Practice routine work that is required in a field or garden.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student does not achieve mastery in any of the below skills but was able to conduct 2 activities involving the below skills with guidance.</p> <p>Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.</p>	<p>Student shows mastery of skill in 1 out of the below skills.</p> <p>Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.</p>	<p>Student shows mastery of skill in 2 out of the below skills.</p> <p>Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.</p>	<p>Student shows mastery of skill in a minimum of 3 out of the below skills.</p> <p>Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.</p>
<b>A-1</b>	Successfully grow a tray of seedlings.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	<p>Student has independently conducted 1 of the below tasks in a skilful manner:</p> <p>Filling tray with given medium and seeding appropriately.</p> <p>Topping tray and irrigating appropriately.</p> <p>Production of mature seedlings with a success rate of not less than 50%.</p> <p>Production of mature seedlings with a success rate of not less than 80%.</p>	<p>Student has independently conducted 2 of the below tasks in a skilful manner:</p> <p>Filling tray with given medium and seeding appropriately.</p> <p>Topping tray and irrigating appropriately.</p> <p>Production of mature seedlings with a success rate of not less than 50%.</p> <p>Production of mature seedlings with a success rate of not less than 80%.</p>	<p>Student has independently conducted 3 of the below tasks in a skilful manner:</p> <p>Filling tray with given medium and seeding appropriately.</p> <p>Topping tray and irrigating appropriately.</p> <p>Production of mature seedlings with a success rate of not less than 50%.</p> <p>Production of mature seedlings with a success rate of not less than 80%.</p>	<p>Student has independently conducted all the below tasks in a skilful manner:</p> <p>Filling tray with given medium and seeding appropriately.</p> <p>Topping tray and irrigating appropriately.</p> <p>Production of mature seedlings with a success rate of not less than 50%.</p> <p>Production of mature seedlings with a success rate of not less than 80%.</p>
<b>A-1 total:</b>				

## Topic 2: Propagate plants using different methods. (22 marks)

K-3	Mention the TWO types of germination.			
	☐ 0.5 marks		☐ 1 mark	
	Mentioned 1 type of germination.		Mentioned 2 types of germination.	
K-3	Outline TWO conditions required for optimum propagation of plants.			
	☐ 0.25 marks	☐ 0.5 marks	☐ 0.75 marks	☐ 1 mark
	Outlined 1 condition in very brief detail.	Outlined 2 conditions in very brief detail.	Outlined 1 condition in detail.	Outlined 2 conditions in detail.
K-3	Describe TWO propagation techniques used for different plants.			
	☐ 0.5 marks	☐ 1 mark	☐ 1.5 marks	☐ 2 marks
	Describes in limited detail 1 propagation technique.	Describes in limited detail 2 propagation techniques.	Describes in detail 1 propagation technique.	Describes in detail 2 propagation techniques.
K-3 total:				
K-4	List TWO types of media used for plant propagation and growth.			
	☐ 0.5 marks		☐ 1 mark	
	Lists 1 type of media		Lists 2 types of media	
K-4	State suitable growth media for TWO different applications, applied to a specific example, in horticulture.			
	☐ 0.5 marks		☐ 1 mark	
	States 1 suitable growth medium.		States 2 suitable growth media.	
K-4	List ONE advantage and ONE disadvantage for TWO given growth media.			
	☐ 0.5 marks	☐ 1 mark	☐ 1.5 marks	☐ 2 marks
	Listed either 1 advantage <b>or</b> 1 disadvantage for 1 growth medium.	Listed 1 advantage and 1 disadvantage for 1 growth medium. <b>OR</b>  Listed either 1 advantage <b>or</b> 1 disadvantage for 2 growth media.	Listed 1 advantage and 1 disadvantage for 1 growth medium. <b>AND</b>  Listed either 1 advantage <b>or</b> 1 disadvantage for 1 growth medium.	Listed 1 advantage and 1 disadvantage for 2 growth media.
K-4 total:				

K-5	List TWO tools and materials required to graft a plant.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 tool.		Lists 2 tools.	
K-5	Mention TWO considerations required to graft a plant.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Mentions 1 consideration.		Mentions 2 considerations.	
K-5	Describe TWO benefits of grafted plants.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Describes very basically 1 benefit.	Describes very basically 2 benefits.	Describes in detail 1 benefit.	Describes in detail 2 benefits.
K-5 total:				
A-2	Use the correct tools and procedure to take viable cuttings.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks but required assistance for all tasks: Sanitization of tools, Proper utilisation of tools, Taking of correct cuttings from a healthy mother plant.  NB: if PPEs are not used no marks are to be awarded.	Student conducts 1 task with zero assistance: Sanitization of tools, Proper utilisation of tools, Taking of correct cuttings from a healthy mother plant.  NB: if PPEs are not used no marks are to be awarded.	Student conducts 2 tasks with zero assistance: Sanitization of tools, Proper utilisation of tools, Taking of correct cuttings from a healthy mother plant.  NB: if PPEs are not used no marks are to be awarded.	Student conducts all 3 tasks with zero assistance: Sanitization of tools, Proper utilisation of tools, Taking of correct cuttings from a healthy mother plant.  NB: if PPEs are not used no marks are to be awarded.
A-2	Use the correct procedure to plant a number of cuttings.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks successfully but required assistance for all tasks: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. NB: if PPEs are not used no marks are to be awarded.	Student conducts 1 task with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. NB: if PPEs are not used no marks are to be awarded.	Student conducts 2 tasks with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. NB: if PPEs are not used no marks are to be awarded.	Student conducts all 3 tasks with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. NB: if PPEs are not used no marks are to be awarded.



<b>A-2</b>	Successfully grow a number of cuttings.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	<p>Minimum attempt where student conducts all tasks successfully but required assistance for all tasks:</p> <ul style="list-style-type: none"> <li>● Fill container with media and cutting as required for specific plant.</li> <li>● Regular watering as required for specific plant.</li> </ul> <p><b>However</b></p> <p>success rate less than 75% but not less than 50%.</p> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Student conducts all tasks successfully but required assistance for all tasks:</p> <ul style="list-style-type: none"> <li>● Fill container with media and cutting as required for specific plant.</li> <li>● Regular watering as required for specific plant.</li> </ul> <p><b>and</b></p> <ul style="list-style-type: none"> <li>● Production of new plant via cutting with a success rate of not less than 75%.</li> </ul> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Student conducts all 1 task with zero assistance:</p> <ul style="list-style-type: none"> <li>● Fill container with media and cutting as required for specific plant.</li> <li>● Regular watering as required for specific plant.</li> </ul> <p><b>and</b></p> <ul style="list-style-type: none"> <li>● Production of new plant via cutting with a success rate of not less than 75%.</li> </ul> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>	<p>Student conducts all 2 tasks with zero assistance:</p> <ul style="list-style-type: none"> <li>● Fill container with media and cutting as required for specific plant.</li> <li>● Regular watering as required for specific plant.</li> </ul> <p><b>and</b></p> <ul style="list-style-type: none"> <li>● Production of new plant via cutting with a success rate of not less than 75%.</li> </ul> <p><i>NB: if PPEs are not used no marks are to be awarded.</i></p>
<b>A-2 total:</b>				

### Topic 3: Undertake proper fish keeping tasks to maintain a healthy fish tank. (20 marks)

K-6	Match FOUR fish species to their respective habitat.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matched 1 species to respective habitat.	Matched 2 species to respective habitat.	Matched 3 species to respective habitat.	Matched 4 species to respective habitat.
K-6	List TWO water parameters that should be monitored to keep a healthy fish tank.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 water parameter.		Lists 2 water parameters.	
K-6	Outline TWO fish habitats in relation to water parameters.			
	<input type="checkbox"/> 1 mark		<input type="checkbox"/> 2 marks	
	Outlined 1 fish habitat correctly.		Outlined 2 fish habitats correctly.	
K-6 total:				
C-2	Justify the size of a given aquarium for ONE given fish species.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Limited justification based upon 1 out of the below points: Size or fish and/or Aggression of fish species and/or Fish morphology and/or Species swimming/schooling pattern.	Limited justification based upon 2 out of the below points: Size or fish and/or Aggression of fish species and/or Fish morphology and/or Species swimming/schooling pattern.	Detailed justification based upon 1 out of the below points: Size or fish and/or Aggression of fish species and/or Fish morphology and/or Species swimming/schooling pattern./schooling pattern.	Detailed justification based upon 2 out of the below points: Size or fish and/or Aggression of fish species and/or Fish morphology and/or Species swimming/schooling pattern.
C-2	Explain TWO benefits of water change of a fish tank.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Explains in limited detail 1 benefit.	Explains in limited detail 2 benefits.	Explains in detail 1 benefit.	Explains in detail 2 benefits.
C-2	Discuss the importance of ONE aquarium décor item in relation to fish health of a given species.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Discusses in limited detail taking into consideration either the fish's wellbeing <b>or</b> natural habitat.	Discusses in limited detail taking into consideration the fish's wellbeing and natural habitat.	Discusses in detail taking into consideration either the fish's wellbeing <b>or</b> natural habitat.	Discusses in detail taking into consideration the fish's wellbeing and natural habitat.
C-2 total:				

<b>A-3</b>	Give the right quantity of the right feed to fish in a running fish tank			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student conducts all tasks successfully but required assistance for all tasks:</p> <p>Selection of correct feed for given fish tank.</p> <p>Correct amount of fish feed.</p> <p>Proper feeding technique.</p>	<p>Student conducts 1 task with zero assistance:</p> <p>Selection of correct feed for given fish tank.</p> <p>Correct amount of fish feed.</p> <p>Proper feeding technique.</p>	<p>Student conducts 2 tasks with zero assistance:</p> <p>Selection of correct feed for given fish tank.</p> <p>Correct amount of fish feed.</p> <p>Proper feeding technique.</p>	<p>Student conducts all 3 tasks with zero assistance:</p> <p>Selection of correct feed for given fish tank.</p> <p>Correct amount of fish feed.</p> <p>Proper feeding technique.</p>
<b>A-3</b>	Record water parameters for a given fish tank.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student measures <b>and</b> records successfully 5 water parameters listed below requiring assistance for both measuring parameters and recording results: Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.</p>	<p>Student measures successfully 5 water parameters listed below with zero assistance: Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.</p>	<p>Student measures <b>and</b> records successfully all 6 water parameters listed below requiring assistance for recording results: Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.</p> <p>NB: Deduct 0.5 marks if 5 parameters are measured.</p>	<p>Student measures <b>and</b> records successfully all 6 water parameters listed below with zero assistance: Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.</p>
<b>A-3</b>	Conduct a water change for a running fish tank.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	<p>Student performs skilfully all 1 out of the 4 tasks below with zero assistance:</p> <p>Remove a suitable amount of water using appropriate tools.</p> <p>Measure and dose the correct water additive.</p> <p>Top-up water to appropriate level.</p> <p>After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</p>	<p>Student performs skilfully all 2 out of the 4 tasks below with zero assistance:</p> <p>Remove a suitable amount of water using appropriate tools.</p> <p>Measure and dose the correct water additive.</p> <p>Top-up water to appropriate level.</p> <p>After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</p>	<p>Student performs skilfully all 3 out of the 4 tasks below with zero assistance:</p> <p>Remove a suitable amount of water using appropriate tools.</p> <p>Measure and dose the correct water additive.</p> <p>Top-up water to appropriate level.</p> <p>After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</p>	<p>Student performs skilfully all 4 tasks below with zero assistance:</p> <p>Remove a suitable amount of water using appropriate tools.</p> <p>Measure and dose the correct water additive.</p> <p>Top-up water to appropriate level.</p> <p>After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</p>
<b>Total A-3:</b>				

#### Topic 4: Meet the basic needs of an avian and a mammalian pet. (34 marks)

Topic: What are the basic needs of an avian and a mammalian pet (57 marks)				
K-7	List TWO common mammalian pets kept in Malta.			
	□ 0.5 marks		□ 0.5 marks	
	Lists 1 common mammalian pet.		Lists 1 common mammalian pet.	
K-7	Identify TWO types of accommodation for common mammalian pets in Malta.			
	□ 0.5 marks		□ 0.5 marks	
	Identifies 1 type of accommodation.		Identifies 1 type of accommodation.	
K-7	Outline a diet for a mammalian pet through ONE life stage.			
	□ 0.5 marks	□ 1 mark	□ 1.5 marks	□ 2 marks
	Detailed discussion where the below 1 out of the 4 nutrients are included: Protein, Carbohydrates, Fibre, Vitamins and minerals <i>NB: Where applicable, eg. Cats and dogs, 1 nutrient may be replaced by pellet size.</i>	Detailed discussion where the below 2 out of the 4 nutrients are included: Protein, Carbohydrates, Fibre, Vitamins and minerals <i>NB: Where applicable, e.g. Cats and dogs, 1 nutrient may be replaced by pellet size.</i>	Detailed discussion where the below 3 out of the 4 nutrients are included: Protein, Carbohydrates, Fibre, Vitamins and minerals <i>NB: Where applicable, e.g. Cats and dogs, 1 nutrient may be replaced by pellet size.</i>	Detailed discussion where the below nutrients are all included: Protein, Carbohydrates, Fibre, Vitamins and minerals <i>NB: Where applicable, e.g. Cats and dogs, 1 nutrient may be replaced by pellet size.</i>
K-7 total:				
K-8	List TWO common avian pets kept in Malta.			
	□ 0.5 marks		□ 1 mark	
	Lists 1 common avian pet.		Lists 2 common avian pets.	
K-8	Identify TWO types of accommodation for common avian pets in Malta.			
	□ 0.5 marks		□ 1 mark	
	Identifies 1 type of accommodation.		Identifies 2 types of accommodation.	
K-8	Select the appropriate feed for FOUR given avian pets.			
	□ 0.5 marks	□ 1 mark	□ 1.5 marks	□ 2 marks
	Selects 1 appropriate feed.	Selects 2 appropriate feeds.	Selects 3 appropriate feeds.	Selects 4 appropriate feeds.
K-8 total:				
C-3	Indicate the ideal environmental conditions required to keep a given mammalian pet and a given avian pet.			
	□ 0.5 marks	□ 1 mark	□ 1.5 marks	□ 2 marks
	Answer includes mentioning only 1 of the 2 following points: - Length of day - Temperature	Answer includes mentioning only the 2 following points: - Length of day - Temperature	Answer includes 1 of the 2 following points in detail: - Length of day - Temperature	Answer includes the 2 following points in detail: - Length of day - Temperature
C-3	Describe factors that determine the number of a given pet that should be kept in a given cage/housing.			
	□ 0.5 marks	□ 1 mark	□ 1.5 marks	□ 2 marks
	Answer includes mentioning only the of the 2 points below: - Size of pet - Natural behaviour of pet.	Answer includes mentioning only the 2 points below: - Size of pet - Natural behaviour of pet.	Detailed description where the 1 of the 2 points below is included: - Size of pet - Natural behaviour of pet.	Detailed description where the 2 points below are included: - Size of pet - Natural behaviour of pet.

<b>C-3</b>	Discuss ONE criterion that should be considered when designing a record-keeping sheet for feeding and vaccination of a given pet.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	List reasons, without discussing why the criterion is important.	Discusses in brief the importance of the given criterion in record keeping card.	Discusses in detail giving facts rather than a justification why the given criterion is essential in record keeping card.	Discusses in detail giving proper justification why the given criterion is essential in record keeping card.
<b>C-3 total:</b>				
<b>A-4</b>	Clean the cage/housing of a given mammalian pet.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks successfully but required assistance for all tasks: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.	Student conducts 1 task with zero assistance: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.	Student conducts 2 tasks with zero assistance: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.	Student conducts all 3 tasks with zero assistance: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.
<b>A-4</b>	Give the right quantity of feed to a given mammalian pet according to the given life stage.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks successfully but required assistance for all tasks: Select suitable food for given pet. Weigh/measure suitable amount of feed. Loading feeder and placing appropriately.	Student conducts 1 task with zero assistance: Select suitable food for given pet. Weigh/measure suitable amount of feed. Loading feeder and placing appropriately.	Student conducts 2 tasks with zero assistance: Select suitable food for given pet. Weigh/measure suitable amount of feed. Loading feeder and placing appropriately.	Student conducts all 3 tasks with zero assistance: Select suitable food for given pet. Weigh/measure suitable amount of feed. Loading feeder and placing appropriately.
<b>A-4</b>	Use the correct procedure for handling a given mammalian pet.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Student was able to perform only 1 of the below tasks: Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily. Safe and comfortable in handling given pet.	Student performs well but required moderate assistance in both below tasks: Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily. Safe and comfortable in handling given pet.	Student performs well but required moderate assistance in 1 of the below tasks: Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily. Safe and comfortable in handling given pet.	Student performs skilfully: Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily. Safe and comfortable in handling given pet.
<b>A-4 total:</b>				



<b>A-5</b> Clean the cage/housing of a given avian pet.				
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student conducts all tasks successfully but required assistance for all tasks:</p> <p>Cleaning of walls and/or floor and/or wire appropriately.</p> <p>Cleaning of feeders appropriately.</p> <p>Cleaning and replenishment of drinkers appropriately.</p>	<p>Student conducts 1 task with zero assistance:</p> <p>Cleaning of walls and/or floor and/or wire appropriately.</p> <p>Cleaning of feeders appropriately.</p> <p>Cleaning and replenishment of drinkers appropriately.</p>	<p>Student conducts 2 tasks with zero assistance:</p> <p>Cleaning of walls and/or floor and/or wire appropriately.</p> <p>Cleaning of feeders appropriately.</p> <p>Cleaning and replenishment of drinkers appropriately.</p>	<p>Student conducts all 3 tasks with zero assistance:</p> <p>Cleaning of walls and/or floor and/or wire appropriately.</p> <p>Cleaning of feeders appropriately.</p> <p>Cleaning and replenishment of drinkers appropriately.</p>
<b>A-5</b> Give the right quantity of feed to a given avian pet according to the given life stage.				
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student conducts all tasks successfully but required assistance for all tasks:</p> <p>Select suitable food for given pet.</p> <p>Weigh/measure suitable amount of feed.</p> <p>Loading feeder and placing appropriately.</p>	<p>Student conducts 1 task with zero assistance:</p> <p>Select suitable food for given pet.</p> <p>Weigh/measure suitable amount of feed.</p> <p>Loading feeder and placing appropriately.</p>	<p>Student conducts 2 tasks with zero assistance:</p> <p>Select suitable food for given pet.</p> <p>Weigh/measure suitable amount of feed.</p> <p>Loading feeder and placing appropriately.</p>	<p>Student conducts all 3 tasks with zero assistance:</p> <p>Select suitable food for given pet.</p> <p>Weigh/measure suitable amount of feed.</p> <p>Loading feeder and placing appropriately.</p>
<b>A-5</b> Use the correct procedure for installing a nesting box.				
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	<p>Student was able to perform only 1 of the below tasks:</p> <p>Selects the correct nest box according to bird species</p> <p>Positions the box correctly.</p> <p>Secure installation of the box.</p>	<p>Student performs well but required moderate assistance in both below tasks:</p> <p>Selects the correct nest box according to bird species</p> <p>Positions the box correctly.</p> <p>Secure installation of the box.</p>	<p>Student performs well but required moderate assistance in 1 of the below tasks:</p> <p>Selects the correct nest box according to bird species</p> <p>Positions the box correctly.</p> <p>Secure installation of the box.</p>	<p>Student performs skilfully:</p> <p>Selects the correct nest box according to bird species</p> <p>Positions the box correctly.</p> <p>Secure installation of the box.</p>
<b>A-5 total:</b>				

**Topic 5: Gardening and landscaping. (27 marks)**

Topic: Gardening and Landscaping (27 marks)				
K-9	List TWO common sustainable garden types suitable for the Mediterranean climate.			
	□ 0.5 marks		□ 1 mark	
	Lists 1 common sustainable garden type.		Lists 2 common sustainable garden types.	
K-9	Name TWO plants suitable for a given garden type.			
	□ 0.5 marks		□ 1 mark	
	Names ONE plant suitable for a given garden type.		Names TWO plants suitable for a given garden type.	
K-9 total:				
K-10	List ONE type of fertiliser and ONE macronutrient.			
	□ 0.5 marks		□ 1 mark	
	Lists 1 type of fertiliser <b>OR</b> 1 macronutrient.		Lists 1 type of fertiliser and 1 macronutrient.	
K-10	State TWO benefits of organic matter in soil.			
	□ 0.5 marks		□ 1 mark	
	States 1 benefit.		States 2 benefits.	
K-10 total:				
C-4	Illustrate a given sketch of a garden site with plants and other items for a given garden type.			
	□ 1 mark	□ 1.5 marks	□ 2.5 marks	□ 3 marks
	Student required mild prompting to add both plants and other elements to given sketch. The presentation is not as neat and clear. The selection of different plants and other elements is with limited compatibility but suitable for given garden type.	Student independently adds both plants and other elements to given sketch. The presentation is not as neat and clear. The selection of different plants and other elements is with limited compatibility but suitable for given garden type.	Student independently adds both plants and other elements to given sketch. <b>Either</b> the presentation is neat and clear. The selection of different plants and other elements is with limited compatibility but suitable for given garden type. <b>OR</b> the presentation is not as neat and clear. The selection of different plants and other elements is compatible and suitable for given garden type.	Student independently adds both plants and other elements to given sketch. Presentation is neat and clear. The selection of different plants and other elements is compatible and suitable for given garden type.
C-4	Sketch an irrigation system according to given specifications.			
	□ 1 mark	□ 1.5 marks	□ 2.5 marks	□ 3 marks
	Student independently produced a sketch of the irrigation system which includes 2 out of the 5 following items: <ul style="list-style-type: none"><li>- Main source of water</li><li>- Irrigation tubing</li><li>- Tubing diameter</li><li>- Emitter locations</li><li>- Other irrigation fittings such as tees, end caps etc.</li></ul>	Student independently produced a sketch of the irrigation system which includes 3 out of the 5 following items: <ul style="list-style-type: none"><li>- Main source of water</li><li>- Irrigation tubing</li><li>- Tubing diameter</li><li>- Emitter locations</li><li>- Other irrigation fittings such as tees, end caps etc.</li></ul>	Student independently produced a sketch of the irrigation system which includes 4 out of the 5 following items: <ul style="list-style-type: none"><li>- Main source of water</li><li>- Irrigation tubing</li><li>- Tubing diameter</li><li>- Emitter locations</li><li>- Other irrigation fittings such as tees, end caps etc.</li></ul>	Student independently produced a sketch of the irrigation system which includes the following items: <ul style="list-style-type: none"><li>- Main source of water</li><li>- Irrigation tubing</li><li>- Tubing diameter</li><li>- Emitter locations</li><li>- Other irrigation fittings such as tees, end caps etc.</li></ul>
C-4 total:				

<b>A-6</b>	Transplant a number of plants in a garden area according to a given site.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student transplanted plants with slight assistance: <ul style="list-style-type: none"> <li>- in location as per given job sheet.</li> <li>- Using appropriate tools and technique.</li> </ul>	Student conducts 1 task with zero assistance: <ul style="list-style-type: none"> <li>Cleaning of walls and/or floor and/or wire appropriately.</li> <li>Cleaning of feeders appropriately.</li> <li>Cleaning and replenishment of drinkers appropriately.</li> </ul>	Student transplanted plants with slight assistance: <ul style="list-style-type: none"> <li>- in location as per given job sheet.</li> <li>- Using appropriate tools and technique.</li> </ul>	Student conducts all 3 tasks with zero assistance: <ul style="list-style-type: none"> <li>Cleaning of walls and/or floor and/or wire appropriately.</li> <li>Cleaning of feeders appropriately.</li> <li>Cleaning and replenishment of drinkers appropriately.</li> </ul>
<b>A-6</b>	Practice techniques for raising soil beds and creating ridges ('konka') around the plants transplanted in your garden area.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student forms one round ridge around a given plant that has either a consistent trough or ridge. Work is done with minimal assistance.	Student conducts 1 task with zero assistance: <ul style="list-style-type: none"> <li>Select suitable food for given pet.</li> <li>Weigh/measure suitable amount of feed.</li> <li>Loading feeder and placing appropriately.</li> </ul>	Student forms one round ridge around a given plant that has either a consistent trough or ridge. Work is done with minimal assistance.	Student conducts all 3 tasks with zero assistance: <ul style="list-style-type: none"> <li>Select suitable food for given pet.</li> <li>Weigh/measure suitable amount of feed.</li> <li>Loading feeder and placing appropriately.</li> </ul>
<b>A-6</b>	Lay an irrigation system for your garden area as per given plan.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student performs all tasks with minimal assistance. <ul style="list-style-type: none"> <li>- Irrigation lines are laid skilfully</li> <li>- All fittings attached according to specifications of product.</li> </ul> Emitters attached according to specifications of product.	Students performs well but required moderate assistance in both below tasks: <ul style="list-style-type: none"> <li>Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily.</li> <li>Safe and comfortable in handling given pet.</li> </ul>	Student performs all tasks with minimal assistance. <ul style="list-style-type: none"> <li>- Irrigation lines are laid skilfully</li> <li>- All fittings attached according to specifications of product.</li> </ul> Emitters attached according to specifications of product.	Students performs skilfully: <ul style="list-style-type: none"> <li>Safe and comfortable handling for pet where animal is neither harmed nor stressed unnecessarily.</li> <li>Safe and comfortable in handling given pet.</li> </ul>
<b>A-6 total:</b>				
<b>A-7</b>	Maintain a given garden area over a period of time under supervision.			
	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4.5 marks	<input type="checkbox"/> 6 marks
	Student conducts a minimum of 3 tasks from the list below for 4 weeks (3 tasks per week) with greater assistance: <ul style="list-style-type: none"> <li>- De-weeding</li> <li>- Pruning</li> <li>- Cleaning of garden and work area from plant material and other items</li> <li>- Giving fertiliser</li> <li>- Tilling the soil and e.g. forming ridges.</li> </ul>	Student conducts a minimum of 3 tasks from the list below for 4 weeks (3 tasks per week) with minimal assistance: <ul style="list-style-type: none"> <li>- De-weeding</li> <li>- Pruning</li> <li>- Cleaning of garden and work area from plant material and other items</li> <li>- Giving fertiliser</li> <li>- Tilling the soil and e.g. forming ridges.</li> </ul>	Student conducts a minimum of 3 tasks from the list below for 4 weeks (3 tasks per week) with zero assistance: <ul style="list-style-type: none"> <li>- De-weeding</li> <li>- Pruning</li> <li>- Cleaning of garden and work area from plant material and other items</li> <li>- Giving fertiliser</li> <li>- Tilling the soil and e.g. forming ridges.</li> </ul>	Student conducts a minimum of 3 tasks from the list below for 6 weeks (3 tasks per week) with zero assistance: <ul style="list-style-type: none"> <li>- De-weeding</li> <li>- Pruning</li> <li>- Cleaning of garden and work area from plant material and other items</li> <li>- Giving fertiliser</li> <li>- Tilling the soil and e.g. forming ridges.</li> </ul>

<b>A-7</b>	Conduct a given pruning task under supervision.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	<p>Student required significant prompting together with practical assistance whilst performing pruning task. However, the following skills were observed:</p> <ul style="list-style-type: none"> <li>- Appropriate use of pruning tools.</li> <li>- Follows all instructions given for specific pruning task.</li> </ul>	<p>Student conducts 1 task with zero assistance: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.</p>	<p>Student required significant prompting together with practical assistance whilst performing pruning task. However, the following skills were observed:</p> <ul style="list-style-type: none"> <li>- Appropriate use of pruning tools.</li> </ul> <p>Follows all instructions given for specific pruning task.</p>	<p>Student conducts all 3 tasks with zero assistance: Cleaning of walls and/or floor and/or wire appropriately. Cleaning of feeders appropriately. Cleaning and replenishment of drinkers appropriately.</p>
<b>A-7 total:</b>				

### Topic 6: Setting-up an aquarium. (12 marks)

Topic 6: Setting up an aquarium. (12 marks)				
K-11	List TWO different pieces of life support/habitat equipment used in an aquarium.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 piece of equipment.		Lists min. 2 pieces of equipment.	
K-11	List TWO different décor items used in an aquarium.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 decor item.		Lists min. 2 decor items.	
K-11 total:				
K-12	Name TWO aquascaping styles.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 aquascaping style.		Names min. 2 aquascaping styles'	
K-12	List ONE aquarium maintenance tools/supplies and ONE aquascaping tools/supplies.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists min. 1 maintenance tool/supplies <b>OR</b> Lists min. 1 aquascaping tool.		Lists min. 1 maintenance tool/supplies <b>AND</b> Lists min. 1 aquascaping tool.	
K-12 total:				
A-8	Set-up an aquarium with the necessary equipment and décor.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student completes full set-up with significant assistance <b>AND</b> significant prompting.	Student completes full set-up with significant assistance <b>OR</b> significant prompting.	Student completes full set-up with minimal assistance <b>OR</b> minimal prompting.	Student completes full set-up without any assistance or prompting.
A-8	Prepare an aquarium to make it suitable to host the given biota.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Student performs tasks with a high level of assistance.	Student performs tasks with moderate assistance.	Student performs tasks skilfully <b>BUT</b> requiring moderate assistance for 1 task only.	Student performs tasks skilfully without any assistance.
A-8	Maintain an aquarium for a period of time.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student performs a min. of 6 out of the 8 indicated tasks skilfully over a minimum period of 30 days. Slight assistance/prompting was required. At least 2 entries of record of work to be included.	Student performs a min. of 6 out of the 8 indicated tasks skilfully over a minimum period of 30 days. At least 2 entries of record of work to be included.	Student performs a min. of 6 out of the 8 indicated tasks skilfully over a minimum period of 30 days. Slight assistance/prompting was required. At least 3 entries of record of work to be included.	Student performs a min. of 6 out of the 8 indicated tasks skilfully over a minimum period of 30 days. At least 3 entries of record of work to be included.
A-8 total:				



## Topic 7: Petcare. (21 marks)

K-13	Name TWO basic tools used in animal grooming.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Named 1 tool.		Named 2 tools.	
K-13	List TWO animal coat types.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Listed 1 animal coat type.		Listed 2 animal coat types.	
K-13 total:				
K-14	Name TWO PPEs utilised in animal grooming and veterinary nursing.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 PPE.		Names 2 PPEs.	
K-14	Name TWO tools utilised in veterinary nursing.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 tool/equipment.		Names 2 tools/equipment.	
K-14 total:				
K-15	List ONE common pet health condition, ONE common pet parasite and ONE common pet disease and how to treat them.			
	<input type="checkbox"/> 1 mark		<input type="checkbox"/> 2 marks	
	Student lists: 1 common pet health condition <b>OR</b> 1 common pet parasite <b>OR</b> 1 common pet disease.		Student lists: 1 common pet health condition <b>OR</b> 1 common pet parasite <b>OR</b> 1 common pet disease <b>AND</b> how to treat it.	
K-15	List the <b>TWO</b> most important reasons why one should vaccinate an animal.			
	<input type="checkbox"/> 1 mark		<input type="checkbox"/> 2 marks	
	Student lists <b>either</b> prevention of disease <b>or</b> controlling disease transmission		Student lists both prevention of disease and controlling disease transmission	
K-11 total:				
A-9	Conduct a health check for a given animal using basic veterinary nursing equipment.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Through significant assistance, checks 6 areas.	Through significant assistance, checks 9 areas.	Skilfully, with minimal assistance, checks 9 areas.	Skilfully and autonomously checks 9 areas.
A-9	Record the results of an animal health checklist to assess overall health status of a given animal.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	
	60% of records entered correctly.	All records entered correctly with minimal assistance.	All records entered correctly without assistance.	
A-9 total:				
A-10	Select the correct tools the teacher asks you to prepare.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark	
	Half of the grooming tools required for given grooming task were selected without assistance.	Most grooming tools required for given grooming task were selected without assistance.	All grooming tools required for given grooming task were selected without assistance.	

A-10	Assist in the handling and grooming task following instructions given by your teacher.			
	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks	<input type="checkbox"/> 6 marks
	Mildly assists, and required prompting additionally to the instructions, the teacher or relevant staff member during a given grooming task on a given animal. This task is done in pairs having students showing scarce teamwork and collaboration to take turns in acting as the 'leading assistant'. Student restraint the animal upon being given instructions by the teacher.  Grooming procedure to include on least 3 areas of the animal.	Actively assists, but required prompting additionally to the instructions, the teacher or relevant staff member during a given grooming task on a given animal. This task is done in pairs having students showing teamwork and collaboration to take turns in acting as the 'leading assistant'. Student restraint the animal upon being given instructions by the teacher.  Grooming procedure to include on least 3 areas of the animal.	Actively assists through instructions, hands-on, the teacher or relevant staff member during a given grooming task on a given animal. This task is done in pairs having students showing teamwork and collaboration to take turns in acting as the 'leading assistant'. Student restraint the animal upon being given instructions by the teacher.  Grooming procedure to include on least 3 areas of the animal.	Actively assists through instructions, hands-on, the teacher or relevant staff member during a given grooming task on a given animal. This task is done in pairs having students showing teamwork and collaboration to take turns in acting as the 'leading assistant'. Student will be responsible for the restraint of the animal.  Grooming procedure to include on least 3 areas of the animal.
A-10	Maintain grooming tools appropriately.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	
	Student, with minimal assistance and prompting maintains given grooming tools appropriately before and after use.	Student, with minimal assistance, maintains given grooming tools appropriately before and after use.	Student, without any assistance, maintains given grooming tools appropriately before and after use.	
A-10 total:				

## Topic 8: Introductory Apiculture. (18 marks)

K-16	List <b>TWO</b> apicultural products.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	
	Lists 1 apicultural product.	Lists 2 apicultural products.	
K-16	Name <b>TWO</b> roles of a worker bee.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	
	Named 1 role.	Named 2 roles.	
K-16	Identify <b>TWO</b> different honeybee castes.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1mark	
	Identified 1 caste.	Identified 2 castes.	
K-16 total:			

K-17	Match <b>FOUR</b> apicultural tools or equipment to their use.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matches 1 apicultural tool or equipment to its use.	Matches 2 apicultural tools or equipment to their use.	Matches 3 apicultural tools or equipment to their use.	Matches 4 apicultural tools or equipment to their use.
K-17	Name <b>TWO</b> PPEs used whilst working in an apiary.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 PPE.		Names 2 PPEs.	
K-17	Identify <b>TWO</b> parts of a beehive.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Identified 1 part of the beehive.		Identified 2 parts of the beehive.	
K-17 total:				

A-11	Wear the appropriate apicultural PPEs successfully as part of your preparation to access the apiary.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks
	Wears all PPEs with minimal assistance.	Wears most PPEs with minimal assistance. Other PPEs with no assistance.	Wears all PPEs with no assistance.

**NB: This will be assessed exclusively during beehive inspection.**

A-11	Set-up a beehive correctly to be able to host a bee colony.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks
	Complete set-up of beehive with slight assistance for all of the hive.	Complete set-up of beehive with slight assistance for some parts of the hive.	Complete set-up of beehive with no assistance.

A-11	Light-up a bee smoker safely.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	<input type="checkbox"/> 2 marks			
	Smoker was lit successfully with minimal assistance. Student was prompted to remove veil/other flammable items (long hair, sleeves etc.) from the way. Produced a stream of 'warm' smoke.	Smoker was lit successfully with zero assistance. Student was prompted to remove veil/other flammable items (long hair, sleeves etc.) from the way. Produced a stream of 'warm' smoke.	Smoker was lit successfully with zero assistance. Student removed veil/other flammable items (long hair, sleeves etc.) from the way. Produced a stream of 'warm' smoke.	
A-11	Follow instructions to conduct a beehive inspection under supervision.			
	<input type="checkbox"/> 2 marks		<input type="checkbox"/> 3 marks	
	<input type="checkbox"/> 4.5 marks		<input type="checkbox"/> 6 marks	
	The student after prompting:  - Stands behind hive rather than in front. <b>or</b> - Behaves appropriately in the apiary; (compulsory)		The student after prompting:  - Stands behind hive rather than in front. <b>or</b> - Behaves appropriately in the apiary; (compulsory)	
	Student will, upon prompting, carry out 2 out the 3 tasks:  - Hold frames appropriately; - Utilise a hive tool;  Open or close a hive.		Student will, upon prompting, carry out:  - Hold frames appropriately; - Utilise a hive tool;  Open or close a hive.	
	The student after prompting:  - Behaves appropriately in the apiary; - Stands behind hive rather than in front.		The student autonomously:  - Behaves appropriately in the apiary; - Stands behind hive rather than in front.	
	Student will, upon prompting, carry out:  - Hold frames appropriately; - Utilise a hive tool;  Open or close a hive.		Student will, upon prompting, carry out:  - Hold frames appropriately; - Utilise a hive tool;  Open or close a hive.	
A-11 total:				

### Topic 9: Poultry Farming. (22 marks)

<b>K-18</b>	Identify TWO pieces of equipment used in poultry farming.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Identifies 1 piece of equipment.		Identifies 2 pieces of equipment.	
<b>K-18</b>	List TWO types of poultry.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 poultry type.		Lists 2 poultry types.	
<b>K-18 total:</b>				
<b>K-19</b>	Name TWO feeds used from chick to adult in layer hen rearing.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 feed.		Names 2 feeds.	
<b>K-19</b>	Name TWO feeds used from chick to slaughter in broiler rearing.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 feed from the.		Names 2 feeds.	
<b>K-19 total:</b>				
<b>K-20</b>	Organise the steps in the process involved in the production of chickens.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Indicates 1 missing step. OR Indicates 1 missing precaution.	Indicates 2 missing steps. OR Indicates 2 missing precautions. OR Indicates 1 missing step and 1 missing precaution	Indicates 2 missing steps and 1 missing precaution. OR Indicates 1 missing step and 2 missing precautions.	Indicates 2 missing steps and 2 missing precautions.
<b>K-20 total:</b>				
<b>C-5</b>	Explain briefly why any <b>TWO</b> bio-security measures are conducted in the running of a farm.			
	<input type="checkbox"/> 2 marks		<input type="checkbox"/> 4 marks	
	Brief explanation of 1 bio-security measure.		Brief explanation of 2 bio-security measures.	
<b>C-5 total:</b>				



<b>C-6</b>	Log all activities involved in the production of chicks to pullet stage.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	<p>Log includes at least 8 of the 14 steps listed in K20.</p> <p>Each entry should include:</p> <ul style="list-style-type: none"> <li>- Date</li> <li>- All observations</li> <li>- Documentation of both positive and negative outcomes of the process.</li> </ul>	<p>Log includes at least 10 of the 14 steps listed in K20.</p> <p>Each entry should include:</p> <ul style="list-style-type: none"> <li>- Date</li> <li>- All observations</li> <li>- Documentation of both positive and negative outcomes of the process.</li> </ul>	<p>Log includes at least 12 of the 14 steps listed in K20.</p> <p>Each entry should include:</p> <ul style="list-style-type: none"> <li>- Date</li> <li>- All observations</li> <li>- Documentation of both positive and negative outcomes of the process.</li> </ul>	<p>Log includes all 14 steps listed in K20.</p> <p>Each entry should include:</p> <ul style="list-style-type: none"> <li>- Date</li> <li>- All observations</li> <li>- Documentation of both positive and negative outcomes of the process.</li> </ul>

**C-6 total:**

<b>A-12</b>	Collect eggs and store appropriately.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Student follows given standard procedure with moderate assistance and prompting.	Student follows given standard procedure with moderate assistance.	Student follows given standard procedure without any assistance.
<b>A-12</b>	Clean and disinfect chicken coop including the drinker/feeder system.		
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	Student follows given standard procedure with moderate assistance and prompting.	Student follows given standard procedure with moderate assistance.	Student follows given standard procedure without any assistance.
<b>A-12</b>	Replenish feeders and drinkers appropriately.		
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	
	Student follows given standard procedure with moderate assistance.	Student follows given standard procedure without any assistance.	

**A-12 total:**

**Topic 10: Cottage Industry Production. (20 marks)**

Topic: Cottage Industry Production (20 marks)				
K-21	List TWO cottage industry products.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 specific item.		Lists 2 specific items.	
K-21	Match <b>FOUR</b> methods of preservation to cottage industry products.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matches 1 product to its respective method of preservation.	Matches 2 products to their respective method of preservation.	Matches 3 products to their respective method of preservation.	Matches 4 products to their respective method of preservation.
K-21 total:				
K-22	List TWO items that make part of the cost to produce a cottage industry product.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Lists 1 expenses.		Lists 2 expenses.	
K-22	Name TWO items that need to be included on a cottage industry product label.			
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark	
	Names 1 item.		Names 2 items.	
K-22 total:				
C-7	Estimate the costs involved in a given cottage industry product.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks	
	Presents all costs involved through minimal prompting.	Through minimal prompting, presents all costs involved and correctly sums up costs without assistance.	Independently, presents all costs involved and correctly sums up costs.	
C-7	Determine a price for a given cottage industry product.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks	
	Through minimal assistance, determines profit margin or percentage profit that is fair to both the producer and consumer. <b>OR</b> Produces a just selling price.	Without any assistance, determines profit margin or percentage profit that is fair to both the producer and consumer. <b>OR</b> Produces a just selling price.	Determines profit margin or percentage profit that is fair to both the producer and consumer. Produces a just selling price.	
C-7 total:				
A-13	Prepare ingredients and containers for the preparation of a range cottage industry products under supervision.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks	
	Prepares most ingredients and most containers from 2 given recipes.	Prepares all ingredients and most containers from 2 given recipes. <b>OR</b> Prepares most ingredients and all containers from 2 given recipes.	Prepares all ingredients and containers from 2 given recipes.	
A-13	Process and transfer to suitable packaging a range of cottage industry products under supervision.			
	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 6 marks	<input type="checkbox"/> 8 marks	
	Through significant assistance, follows procedure from processing up to bottling/canning/package of 2 cottage industry products as per their respective recipes.	Through minimal assistance, follows procedure from processing up to bottling/canning/package of 2 cottage industry products as per their respective recipes.	Follows procedure from processing up to bottling/canning/package of 2 cottage industry products as per their respective recipes.	
A-13	Label a range of cottage industry products under supervision.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks	
	For each cottage industry product, transfers label neatly and correctly. Minimal assistance given.	For each cottage industry product, designs label, transfers label neatly and correctly. Minimal assistance given.	For each cottage industry product, designs label, transfers label neatly and correctly. No assistance given.	
A-13 total:				

## Topic 11: Crop Production. (31 marks)

K-23	Match <b>FOUR</b> crop types with crops.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matches 1 crop to the correct crop type.	Matches 2 crops to the correct crop type.	Matches 3 crops to the correct crop type.	Matches 4 crops to the correct crop type.
K-23	Match <b>FOUR</b> production methods with crops.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matches 1 production method with respective crop.	Matches 2 production methods with respective crops.	Matches 3 production methods with respective crops.	Matches 4 production methods with respective crops.
K-23	Match <b>FOUR</b> propagation techniques with crops.			
	<input type="checkbox"/> 0.25 marks	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 0.75 marks	<input type="checkbox"/> 1 mark
	Matches 1 propagation technique with respective crop.	Matches 2 propagation techniques with respective crops.	Matches 3 propagation techniques with respective crops.	Matches 4 propagation techniques with respective crops.
K-23 total:				
C-8	Establish a sowing and harvesting calendar required for the production of a range of cottage industry products.			
	<input type="checkbox"/> 1 mark		<input type="checkbox"/> 2 marks	
	Produces a harvesting calendar for 2 crops.		Produces a harvesting calendar for 4 crops.	
C-8	Prepare a list of quantities of consumables required to produce a given number/weight of crops required for the production of a cottage industry product.			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 1.5 marks	<input type="checkbox"/> 2 marks
	List includes: 2 out 3 from propagative media, propagation accessories/materials, irrigation items.	List includes: 2 out 3 from propagative media, propagation accessories/materials, irrigation items.  Lists include 1 of 2 with quantities.	List includes: propagative media, propagation accessories/materials, irrigation items.  Lists include 2 of 3 with quantities.	List includes: propagative media, propagation accessories/materials, irrigation items.  Lists include ALL quantities.
C-8	Estimate the costings involved in the production of a given number/weight of crops required for the production of a cottage industry product.			
	<input type="checkbox"/> 1 mark		<input type="checkbox"/> 2 marks	
	Through given price list, student will be able to produce the price per individual crop/kg. <b>OR</b> The gross cost per total projected harvest.		Through given price list, student will be able to produce the price per individual crop/kg and the gross cost per total projected harvest.	
C-8 total:				
A-14	Sow/transplant a range of crops that will be used for the preparation of cottage industry products.			
	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 4 marks	<input type="checkbox"/> 6 marks	<input type="checkbox"/> 8 marks
	Conducts, 4 out of the 6 tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, with greater assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, with minimal assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, without assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.

A-14	Maintain a range of crops until maturity that will be used for the preparation of cottage industry products.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 4 marks	<input type="checkbox"/> 6 marks
	Conducts, 3 out of the 5 tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, with greater assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, with minimal assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.	Conducts, without assistance, all tasks throughout the lifetime of crops intended to be used in cottage industry produce.
A-14	Harvest crops that will be used for the preparation of cottage industry products.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Conducts, 2 out of 4 tasks pertaining to the harvesting process of crops intended to be used in cottage industry produce.	Conducts, with greater assistance, all tasks pertaining to the harvesting process of crops intended to be used in cottage industry produce.	Conducts, with minimal assistance, all tasks pertaining to the harvesting process of crops intended to be used in cottage industry produce.	Conducts, without assistance, all tasks pertaining to the harvesting process of crops intended to be used in cottage industry produce.
A-14 total:				
A-15	Apply fertiliser following instructions under supervision.			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2.5 marks	<input type="checkbox"/> 4 marks	
	Follows given set of instructions to apply fertiliser suitably and safely with greater assistance.	Follows given set of instructions to apply fertiliser suitably and safely with minimal assistance.	Follows given set of instructions to apply fertiliser suitably and safely with no assistance.	
A-15 total:				

### Topic 12: Rabbit farming. (29 marks)

K-24	Identify TWO pieces of equipment used in rabbit farming.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Identifies 1 piece of equipment.		Identifies 2 pieces of equipment.
K-24	List TWO common rabbit breeds.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Lists 1 common rabbit breed.		Lists 2 common rabbit breeds.
K-24 total:			
K-25	Name TWO feeds used in commercial rabbit rearing.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Names 1 feed.		Names 2 feeds.
K-25	Name TWO nutrients found in a commercial rabbit feed.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Names 1 nutrient.		Names 2 nutrients.
K-25 total:			
K-26	List TWO methods of rabbit slaughtering.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Lists 1 method.		Lists 2 methods.
K-26	List TWO methods of presenting rabbit meat to the consumer.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Lists 1 method.		Lists 2 methods.
K-26	List TWO animal welfare aspects to consider when slaughtering animals.		
	<input type="checkbox"/> 0.5 marks		<input type="checkbox"/> 1 mark
	Lists 1 aspect.		Lists aspects.
K-26 total:			
C-9	Prepare a breeding programme calendar for a commercial rabbitry.		
	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Prepares a breeding programme calendar involving most aspects from breeding to slaughter without minimal assistance.	Prepares a breeding programme calendar involving all aspects from breeding to slaughter with minimal assistance.	Prepares a breeding programme calendar involving all aspects from breeding to slaughter without any assistance.
C-9 total:			



A-16	Remove any debris stuck to the wire and the accessories in cages.			
	☐ 1.5 marks		☐ 3 marks	
	Task carried out skilfully but with moderate assistance/prompting.		Task carried out skilfully without assistance.	
A-16	Clean and disinfect the rabbitry including the drinker/feeder system.			
	☐ 2 marks		☐ 4 marks	
	Task carried out skilfully but with moderate assistance/prompting.		Task carried out skilfully without assistance.	
A-16	Replenish feeders and drinkers (where applicable) appropriately.			
	☐ 1 mark		☐ 2 marks	
	Task carried out skilfully but with moderate assistance/prompting.		Task carried out skilfully without assistance.	
A-16 total:				
A-17	Examine a rabbit to determine its sex and health condition.			
	☐ 1 mark		☐ 2 marks	
	Without any assistance, examined to identify <b>either</b> sex <b>or</b> health condition of the rabbit.		Without any assistance, examined to identify both sex and health condition of the rabbit.	
A-17	Select a suitable breeding pair of rabbits.			
	☐ 0.5 marks		☐ 1 mark	
	Without any assistance, selected a suitable breeding rabbit from a given selection of rabbits.		Without any assistance, selected a suitable breeding pair from a given selection of rabbits.	
A-17	Follow instructions to carry out tasks required for a rabbit breeding programme.			
	☐ 1.5 marks	☐ 3 marks	☐ 4.5 marks	☐ 6 marks
	Adheres to given breeding protocol from selection of breeding pair till weaning over a period of less than 9 weeks. All tasks performed by student without need for assistance. Minor prompting required.	Adheres to given breeding protocol from selection of breeding pair till weaning over a period of less than 9 weeks. All tasks performed by student without need for assistance.	Adheres to given breeding protocol from selection of breeding pair till weaning over a period of minimum 9 weeks. All tasks performed by student without need for assistance. Minor prompting required.	Adheres to given breeding protocol from selection of breeding pair till weaning over a period of minimum 9 weeks. All tasks performed by student without need for assistance.
A-17 total:				

# ASSIGNMENT BRIEF FRONTSHEET

## APPLIED VOCATIONAL CERTIFICATE ASSESSMENT FRONT SHEET

Subject		Cohort	
Unit Number		Assessment Number	
Assessment Title			
Date Set		Date Due	
Class/Group		Student ID	
Student Name		Student Surname	
School			
Name of Teacher/ Assessor			

[illegible]

Assessor's feedback

<b>1. Internal Verifier</b> Assignment Brief Approval	Name & Surname: _____ Signature: _____ Date: _____
<b>Teacher / Assessor</b> Following Internal Verification 1	Signature: _____ Date: _____
<b>2. Internal Verifier</b> Assessment Decision Approval ( <i>if sampled</i> )	Name & Surname: _____ Signature: _____ Date: _____
<b>3. Teacher / Assessor</b>	Signature: _____ Date: _____

# ASSIGNMENT BRIEF EXEMPLAR

## Year 9: Topics 1 & 2



### Task 1 Crop Farming and Gardening Basics







#### 100% practical task prepared by Teacher

(10 marks)

- A) Form a straight ridge with a furrow on each side in soil using appropriate tools and PPEs.
- B) Practice as many activities of routine work that are required in a field or garden. Routine work includes: de-weeding, tilling, raking, removal of clippings, transplanting seedlings followed by proper watering, re-potting followed by proper watering. NB: In the process, you should produce a range of crops from seed to harvest and also grow ornamentals from seedling to maturity.
- C) Do your best to successfully grow a tray of seedlings ready for transplant.

### Task 2 Crop Farming and Gardening Basics (14 marks)

- A) From the pictures below, identify the: **saw and safety shoes.**


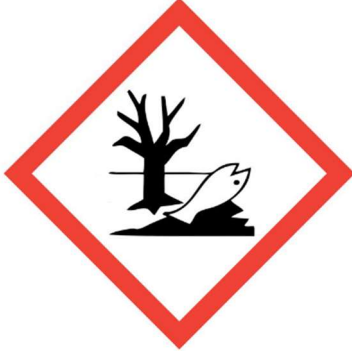


		
		



B) Match personal protective equipment to their functions.

Personal protective equipment		Function
Wellingtons		Protecting person from the sun
Respirator		Protecting person from pesticide fumes
Sun hat		Protecting person's feet from mud
Garden gloves		Protecting person's hands from splinters and

C) Recognise these Health and Safety signs

D) Identify the irrigation equipment items: **tee** and **garden sprinkler**.

E) Match irrigation fittings to their application.

Fittings		Function
Tee		Opening or closing an irrigation main line
End-cap		Terminating a water line
Stop-cock		Make a 90° joint between 2 pipes.
Elbow		Joining a pipe to produce a new water supply line

F) By referring to **pressure** and **flowrate** discuss why different tubing diameters are normally used in an irrigation system.

---



---

G) Outline a reason for the preventive measures required for maintaining a safe work environment.

Availability of personal protective equipment:

---

---

---

Performing a risk assessment, minimising hazards to the minimum:

---

---

---

H) Describe the use of these First Aid box items.

Sterile eye wash:

---

---

---

Surgical gloves:

---

---

---

I) Explain how to deal with a burn injury when giving first aid.

---

---

---

---

---

### Task 3 Producing new plants from cuttings

#### 100% practical task prepared by Teacher

- A) Take a number of suitable cuttings following good procedures.
- B) Plant at least 10 cuttings following good procedures for successful growing.
- C) Do your best to grow those cuttings into new healthy plants. **(10 marks)**

### Task 4 Materials and the science of propagating crops (12 marks)

- A) List 2 types of media used for plant propagation and growth.

Medium 1: _____	Medium 2: _____
--------------------	--------------------

- B) State which growth medium can be used for the following applications:

Open field production: \_\_\_\_\_

Production of seedlings: \_\_\_\_\_

- C) List 1 advantage and 1 disadvantage for 2 of the growth media you listed above.

Growth medium	Advantage	Disadvantage

D) List 2 tools and material required to graft a plant.

1: _____	2: _____
-------------	-------------

E) Mention 2 considerations required to graft a plant.

Consideration1:

---

---

Consideration 2:

---

---

F) Describe 2 benefits of grafted plants.

Benefit 1:

---

---

---

Benefit 2:

---

---

---

G) Mention 2 types of germination.

---

---



H) Outline why the conditions below are very important for propagation of plants.

Sheltering:

---

---

Free from pathogens and pests:

---

---

I) Describe how you propagate the plant below.

Cauliflower by seeding:

---

---

---

A spider plant by runners:

---

---

---

# OBSERVATION SHEET EXEMPLAR

## Observation Sheet Assignment 1 – Topics 1 & 2

Student Name and Surname: \_\_\_\_\_ Class: \_\_\_\_\_

<b>A-1</b>	<b>Form a straight ridge with a furrow on each side in soil using appropriate tools and PPEs.</b>			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Forms a non-uniform ridge. Forms furrows on each side of the ridge but are non-uniform. Uses the appropriate tools. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Forms a ridge that is not straight. Forms furrows on each side of the ridge but are non-uniform. Uses the appropriate tools. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Forms a neat and straight ridge. Forms furrows on each side of the ridge but are non-uniform. Uses the appropriate tools. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Forms a neat and straight ridge. Forms neat and straight furrows on each side of the ridge. Uses the appropriate tools. <i>NB: if PPEs are not used no marks are to be awarded.</i>
<b>A-1</b>	<b>Practice routine work that is required in a field or garden.</b>			
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student does not achieve mastery in any of the below skills but was able to conduct 2 activities involving the below skills with guidance. Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.	Student shows mastery of skill in 1 out of the below skills.  Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.	Student shows mastery of skill in 2 out of the below skills.  Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.	Student shows mastery of skill in a minimum of 3 out of the below skills.  Skills: De-weeding and/or tilling and/or raking and/or removal of clippings and/or transplanting seedlings followed by proper watering and/or re-potting followed by proper watering.
<b>A-1</b>	<b>Successfully grow a tray of seedlings.</b>			
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Student has independently conducted 1 of the below tasks in a skilful manner: ● Filling tray with given medium and seeding appropriately. ● Topping tray and irrigating appropriately. ● Production of mature seedlings with a success rate of not less than 50%. ● Production of mature seedlings with a success rate of not less than 80%.	Student has independently conducted 2 of the below tasks in a skilful manner: ● Filling tray with given medium and seeding appropriately. ● Topping tray and irrigating appropriately. ● Production of mature seedlings with a success rate of not less than 50%. ● Production of mature seedlings with a success rate of not less than 80%.	Student has independently conducted 3 of the below tasks in a skilful manner: ● Filling tray with given medium and seeding appropriately. ● Topping tray and irrigating appropriately. ● Production of mature seedlings with a success rate of not less than 50%. ● Production of mature seedlings with a success rate of not less than 80%.	Student has independently conducted all of the below tasks in a skilful manner: ● Filling tray with given medium and seeding appropriately. ● Topping tray and irrigating appropriately. ● Production of mature seedlings with a success rate of not less than 50%. ● Production of mature seedlings with a success rate of not less than 80%.
<b>Total A-1:</b>				

Comments and teacher's signature:

---



---



---



---



---

<b>A-2 Use the correct tools and procedure to take viable cuttings.</b>				
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks successfully but required assistance for all tasks: ● Sanitization of tools ● Proper utilisation of tools. ● Taking of correct cuttings from a healthy mother plant. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts 1 task with zero assistance: ● Sanitization of tools ● Proper utilisation of tools. ● Taking of correct cuttings from a healthy mother plant. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts 2 tasks with zero assistance: ● Sanitization of tools ● Proper utilisation of tools. ● Taking of correct cuttings from a healthy mother plant. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts all 3 tasks with zero assistance: ● Sanitization of tools ● Proper utilisation of tools. ● Taking of correct cuttings from a healthy mother plant. <i>NB: if PPEs are not used no marks are to be awarded.</i>
<b>A-2 Use the correct procedure to plant a number of cuttings.</b>				
	<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks
	Student conducts all tasks successfully but required assistance for all tasks: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts 1 task with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts 2 tasks with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts all 3 tasks with zero assistance: ● Select the appropriate container according to the type of cutting. ● Select the appropriate media according to the type of cutting. ● Correct orientation of cutting. <i>NB: if PPEs are not used no marks are to be awarded.</i>
<b>A-2 Successfully grow a number of cuttings.</b>				
	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks
	Minimum attempt where student conducts all tasks successfully but required assistance for all tasks: ● Fill container with media and cutting as required for specific plant. ● Regular watering as required for specific plant. <b>However</b> success rate less than 75% but not less than 50%. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts all tasks successfully but required assistance for all tasks: ● Fill container with media and cutting as required for specific plant. ● Regular watering as required for specific plant. <b>and</b> ● Production of new plant via cutting with a success rate of not less than 75%. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts all 1 task with zero assistance: ● Fill container with media and cutting as required for specific plant. ● Regular watering as required for specific plant. <b>and</b> ● Production of new plant via cutting with a success rate of not less than 75%. <i>NB: if PPEs are not used no marks are to be awarded.</i>	Student conducts all 2 tasks with zero assistance: ● Fill container with media and cutting as required for specific plant. ● Regular watering as required for specific plant. <b>and</b> ● Production of new plant via cutting with a success rate of not less than 75%. <i>NB: if PPEs are not used no marks are to be awarded.</i>
<b>Total A-2:</b>				

Comments and teacher's signature:

---



---



---



---



---

# SAMPLE CONTROLLED ASESSMENT

## WRITTEN PAPER

---

### APPLIED VOCATIONAL CERTIFICATE

**YEAR 9**            **in**  
**Agribusiness**

---

Name: \_\_\_\_\_ Class: \_\_\_\_\_

UNIT:                1  
ASSIGNMENT:     3 of 3  
TITLE:  
ISSUE DATE:       NA  
DEADLINE:        NA

### GENERAL INSTRUCTIONS

- Application criteria will be assessed in class.
- The time required to complete practical tasks will be communicated by the teacher.
- Students can answer either in English or in Maltese.
- **Copying** will not be tolerated.

## SECTION A

### Question 1

K-6 (4 marks)

Match the fish species with their respective habitat.

(1)

Fish Species	Habitat
African Cichlids	Cold fresh water
Koi	Marine tropical
Guppies	Brackish
Clownfish	Tropical stone-scaped

b. List **FOUR** water parameters that should be monitored to maintain a healthy fish tank.

Parameter 1: \_\_\_\_\_

Parameter 2: \_\_\_\_\_

Parameter 3: \_\_\_\_\_

Parameter 4: \_\_\_\_\_

(1)



c. Outline **FOUR** fish habitats in relation to **TWO** water parameters.

(2)

Habitat	Water Parameter 1	Water Parameter 2
Cold freshwater housing goldfish		
Brackish water housing mollies		
Tropical planted fresh water, housing tetras		
Marine Mediterranean, housing Seabream		

## Question 2

C-2 (6 marks)

a. A fish tank of 200 litres in the shape of a cube will be used for **TEN** Koi.

(2)

Tick ☒ whether the tank is suitable according to:

i. The Koi's size ☐ Yes ☐ No

Justify your answer: \_\_\_\_\_

ii. The Koi's swimming pattern ☐ Yes ☐ No

Justify your answer: \_\_\_\_\_

b. Explain **TWO** benefits of water change of a fish tank.

Benefit 1:

---



---

(1)

Benefit 2:

(1)

c. Discuss the importance of using limestone rocks as décor when keeping African Cichlids.

(2)

## SECTION B – Practical

### Question 1 A-3 (10 marks)

- Feed the right type and quantity of food according to the fish in the running fish tank.
- Record, following testing, using suitable materials, the water parameters listed.
- Conduct a water change on the running fish tank taking into consideration all Health and Safety procedures. You will only be allowed to carry out this task if you follow Health and Safety procedures.

**To be answered in practical sheet provided by teacher**

## PRACTICAL STUDENTS' SAMPLE PAPER

YEAR 9

APPLIED VOCATIONAL CERTIFICATE in AGRIBUSINESS

Name: \_\_\_\_\_ Class: \_\_\_\_\_

### SECTION B - PRACTICAL

#### Background Information

- You have been practicing fish keeping tasks for some time at the fish room.
- It is now time to show your skills in fish keeping.

#### Question 1

A-3 (10 marks)

- Feed the right type and quantity of food according to the fish in the running fish tank.
- Record, following testing, using suitable materials, the water parameters listed in the record card below.

#### Record Card

Parameter	Value	Is it Too high? Too Low? OK?
Nitrites ( $\text{NO}_2^-$ )		
Nitrates ( $\text{NO}_3^-$ )		
Hardness (GH) value in ° (degrees of hardness)		
pH		
Chlorine ( $\text{Cl}_2$ )		
Temperature in degrees Celsius ( $^{\circ}\text{C}$ )		

- Conduct a water change on the running fish tank taking into consideration all Health and Safety procedures. You will only be allowed to carry out this task if you follow Health and Safety procedures.

**THIS SHEET SHOULD BE RETURNED TO THE TEACHER  
AFTER THE PRACTICAL SESSION/S**

## SAMPLE PRACTICAL ASSESSMENT GUIDELINES FOR TEACHERS

YEAR 9

APPLIED VOCATIONAL CERTIFICATE in AGRIBUSINESS

### GENERAL INSTRUCTIONS

- These guidelines are being provided to indicate the materials / consumables / logistics required in preparation for the assessment of application criteria related to Assignment 3.
- This document is an extract from the Marking Scheme document which will be sent to schools when Assignment 3 is published.
- Information contained within this document is NOT to be disclosed to students prior to the publication of this assignment.
- Any instructions or details that need to be conveyed to students – as indicated within the document itself – should only be communicated following the said publication date.
- Evidence of the work done by students should be kept by teacher for future reference if needed (example: photos, video clips etc).

PRACTICAL ASSESSMENT GUIDELINES FOR TEACHERS	
Section B - Question 1	Criterion A-3
<b>Recommended Estimated Time for completion:</b> 60 minutes	
Preparation	
<ul style="list-style-type: none"> <li>• If the fish room can accommodate up to 16 students working all together, the whole group can perform practical session altogether.</li> <li>• <b>ONE</b> running fish tank housing fish or other animals is to be assigned per student.</li> <li>• All feeds specific to fish tanks utilised for practical session are to be made available during session.</li> <li>• A water test kit per student is to be made available.</li> <li>• A gravel cleaner or siphon is to be made available for every student.</li> <li>• Access to dechlorinator solution/ water conditioner is to be made available to all students. It is suggested that a number of small bottles are used during session rather than a large stock solution.</li> </ul> <p>Before starting the practical assessment, the teacher should:</p> <ul style="list-style-type: none"> <li>• Print a practical sheet per student.</li> <li>• Print an observation sheet per student.</li> <li>• Fill in student details for every observation sheet.</li> <li>• Make sure that main electrical switch/circuit breaker to interrupt electrical supply to all tanks is in correct operation.</li> <li>• Make sure that water supply valve to interrupt water supply to all tanks is in correct operation.</li> </ul>	
Information to be conveyed to students	
<ul style="list-style-type: none"> <li>• No group work is acceptable during any of the practical session.</li> <li>• Anyone not adhering to Health and safety practices will be stopped immediately and not allowed to continue practical session.</li> <li>• Whilst utilising fish feeds, students are to make sure not to waste food, wet the food in the container and to return it back to its original place after use.</li> <li>• Values in part b are to be recorded using blue or black pen.</li> <li>• All consumables are to be disposed of appropriately after use.</li> <li>• Students to be informed about wearing the proper PPEs and to adhere to proper health and safety practices. Failure to do so, will result in loss of <b>ALL</b> marks for the practical.</li> </ul>	

## SAMPLE CONTROLLED ASSESSMENT MARKING SCHEME

Criteria Reference	The candidate should be able to:	Section & Question Number	Maximum marks that can be achieved	Allocation of marks NOT to be subdivided any further than indicated below	Examples of expected answer															
K-6		Section A																		
		Q1	4																	
	Level 1: Match <b>FOUR</b> fish species to their respective habitat.	a	1	Award 0.25 marks for each correct match. (0.25 x 4 = 1 mark)	<table><thead><tr><th>Fish Species</th><th></th><th>Habitat</th></tr></thead><tbody><tr><td>African Cichlids</td><td></td><td>Cold fresh water</td></tr><tr><td>Koi</td><td></td><td>Marine tropical</td></tr><tr><td>Guppies</td><td></td><td>Brackish</td></tr><tr><td>Clownfish</td><td></td><td>Tropical stone-scaped</td></tr></tbody></table>	Fish Species		Habitat	African Cichlids		Cold fresh water	Koi		Marine tropical	Guppies		Brackish	Clownfish		Tropical stone-scaped
	Fish Species		Habitat																	
	African Cichlids		Cold fresh water																	
Koi		Marine tropical																		
Guppies		Brackish																		
Clownfish		Tropical stone-scaped																		
Level 2: List <b>FOUR</b> water parameters that should be monitored to keep a healthy fish tank.	b	1	Award 0.25 marks for each correct water parameter. (0.25 x 4 = 1 mark)	Accept any <b>FOUR</b> of the following parameters: ammonia, nitrites, nitrates, pH, hardness, phosphates, salinity. Accept other valid answers.																
Level 3: Outline <b>FOUR</b> fish habitats in relation to water parameters.	c	2	Award 0.25 marks for each correct parameter. (0.25 x 8 = 2 marks)	Example of a good outline: Brackish tank housing mollies: Water parameter 1: Water should be slightly saline. Water parameter 2: Water should be slightly alkaline. Accept any other valid outline.																
C-2		Q2	6																	
	Level 1: Justify the size of a given aquarium for ONE given fish species.	a	2	Award 0.5 marks for each correct bullet. (0.5 x 4 = 2 marks)	i. <ul style="list-style-type: none"><li>No.</li><li>Koi grow to around 60cm and tank is too small.</li></ul> ii. <ul style="list-style-type: none"><li>No.</li><li>Koi swim in schools just below the surface; a cubic tank is not ideal for this.</li></ul> Accept other suitable answers															
	Level 2: Explain TWO benefits of water change of a fish tank.	b	2	Award 1 mark for each correct bullet. (1 x 2 = 2 marks)	<ul style="list-style-type: none"><li>reduction of pollutants: pollutant such as nitrates accumulate in the tank. The water change will reduce them.</li><li>removal of debris: Debris, especially from fish waste accumulated at the bottom of the tank. Using a gravel cleaner, one will siphon off this debris.</li></ul> Accept other suitable answers.															

	<b>Level 3:</b> Discuss the importance of ONE aquarium décor item in relation to fish health of a given species.	c	2	<p>Award 1 mark for each correct reason. (1 x 2 = 2 marks)</p> <p>NB: if reasons are just mentioned, not explained, award 0.5 marks instead.</p>	<p>Limestone rocks are an important part of an African Cichlid tank for 2 main reasons.</p> <p>Reason 1: Limestone will make the water alkaline which mimics the conditions of the lakes such fish originally come from.</p> <p>Reason 2: Rocks will produce caves and hiding places which are essential due to the highly territorial nature of these fish.</p> <p>Accept other suitable answers.</p>
<b>A-3</b>		<b>SECTION B</b>			
		<b>Q1</b>	<b>10</b>		
	<b>Level 1:</b> Give the right quantity of the right feed to fish in a running fish tank.	a	3	Award marks as per observation sheet rubric	Refer to observation sheet rubric
	<b>Level 2:</b> Record water parameters for a given fish tank.	b	3	Award marks as per observation sheet rubric	Refer to observation sheet rubric
	<b>Level 3:</b> Conduct a water change for a running fish tank.	c	4	Award marks as per observation sheet rubric	Refer to observation sheet rubric



# SAMPLE CONTROLLED ASSESSMENT OBSERVATION SHEET

## OBSERVATION SHEET A-3

NOT TO BE DISTRIBUTED TO STUDENTS

### Activity requirements to meet grading criterion

A-3	Question 1a				3 Marks
<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<b>Comments</b>	
Student conducts all tasks successfully but required assistance for all tasks.	Student conducts 1 task with zero assistance: <ul style="list-style-type: none"> <li>- Selection of correct feed for given fish tank.</li> <li>- Correct amount of fish feed.</li> <li>- Proper feeding technique.</li> </ul>	Student conducts 2 tasks with zero assistance: <ul style="list-style-type: none"> <li>- Selection of correct feed for given fish tank.</li> <li>- Correct amount of fish feed.</li> <li>- Proper feeding technique.</li> </ul>	Student conducts all 3 tasks with zero assistance: <ul style="list-style-type: none"> <li>- Selection of correct feed for given fish tank.</li> <li>- Correct amount of fish feed.</li> <li>- Proper feeding technique.</li> </ul>		
A-3	Question 1b				3 Marks
<input type="checkbox"/> 0.5 marks	<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<b>Comments</b>	
Student measures <b>and</b> records successfully all 6 water parameter listed below requiring assistance for both measuring parameters and recording results:  Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.	Student measures successfully all 6 water parameter listed below with zero assistance:  Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.	Student measures <b>and</b> records successfully all 6 water parameter listed below requiring assistance for recording results:  Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.	Student measures <b>and</b> records successfully all 6 water parameter listed below with zero assistance:  Chlorine, Nitrates, Nitrites, pH, Water hardness, Temperature.		

A-3	Question 1c				3 Marks
<input type="checkbox"/> 1 mark	<input type="checkbox"/> 2 marks	<input type="checkbox"/> 3 marks	<input type="checkbox"/> 4 marks	<b>Comments</b>	
<p>Student performs skilfully all 1 out of the 4 tasks below with zero assistance:</p> <ul style="list-style-type: none"> <li>- Remove a suitable amount of water using appropriate tools.</li> <li>- Measure and dose the correct water additive.</li> <li>- Top-up water to appropriate level.</li> <li>- After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</li> </ul>	<p>Student performs skilfully all 2 out of the 4 tasks below with zero assistance:</p> <ul style="list-style-type: none"> <li>- Remove a suitable amount of water using appropriate tools.</li> <li>- Measure and dose the correct water additive.</li> <li>- Top-up water to appropriate level.</li> <li>- After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition</li> </ul>	<p>Student performs skilfully all 3 out of the 4 tasks below with zero assistance:</p> <ul style="list-style-type: none"> <li>- Remove a suitable amount of water using appropriate tools.</li> <li>- Measure and dose the correct water additive.</li> <li>- Top-up water to appropriate level.</li> <li>- After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</li> </ul>	<p>Student performs skilfully all 4 tasks below with zero assistance:</p> <ul style="list-style-type: none"> <li>- Remove a suitable amount of water using appropriate tools.</li> <li>- Measure and dose the correct water additive.</li> <li>- Top-up water to appropriate level.</li> <li>- After teacher has switched back on electrical items, check that all components and décor are in the appropriate condition.</li> </ul>		
<b>TOTAL MARK FOR A-3 (OUT OF 10 MARKS):</b>					

# EVIDENCE OF PRACTICAL WORK AND SELF-REFLECTION JOURNAL AVC AGRIBUSINESS

Name: \_\_\_\_\_

Cohort: 202\_\_ / 202\_\_



## How to fill in this portfolio?

- After you complete a practical task, include a piece of evidence showing that you have truly done this task. Every piece of evidence needs to have a title and date e.g.



*Transplanting petunias 23/03/2025*

- At the end of each year/unit you have a number of questions you need to answer where there is no right or wrong answer; just write the truth to reflect on your work throughout the scholastic year.
- At the end of the whole course, you have a final evaluation. You will need to reflect on your 3-year journey as an agribusiness student. Again, there is right or wrong answer here.
- **This portfolio is to be kept throughout the course and amounts up to 20 marks in the year 11/unit 3 total of marks.**



# SECTION A:

## Year 9



## Evidence of Practical Work

**A -1** Practice work to successfully grow a full row of plants from seed to maturity.

- Form a straight ridge with a furrow on each side in soil using appropriate tools and PPEs.
- Practice routine work that is required in a field or garden.
- Successfully grow a tray of seedlings.



## Evidence of Practical Work

**A -2** Grow a number of cuttings by following the correct procedures.

- Use the correct tools and procedure to take viable cuttings.
- Use the correct procedure to plant a number of cuttings.
- Successfully grow a number of cuttings.

## Evidence of Practical Work

### A -3 Conduct routine aquarist tasks.

- Give the right quantity of the right feed to fish in a running fish tank.
- Record water parameters for a given fish tank.
- Conduct a water change for a running fish tank.

## Evidence of Practical Work

### A -4 Conduct routine tasks to keep mammalian pets.

- Clean the cage/housing of a given mammalian pet.
- Give the right quantity of feed to a given mammalian pet according to the given life stage.
- Use the correct procedure for handling a given mammalian pet.

## Evidence of Practical Work

### A -5 Conduct routine tasks to keep avian pets.

- Clean the cage/housing of a given avian pet.
- Give the right quantity of feed to a given avian pet according to the given life stage.
- Use the correct procedure to set-up a nest box.

## End of Year 9 Evaluation

Which of the practical task did you find most interesting and why?

---

---

---

---

---

---

Which practical task did you find challenging and why?

---

---

---

---

---

---

Was there a practical task that you disliked. If yes, why?

---

---

---

---

---

---

Mark (max. 5):

Name of teacher:

Signature of teacher:

# SECTION B:

## Year 10





## Evidence of Practical Work

### A - 6 Conduct tasks pertaining to landscaping.

- Transplant a number of plants in a garden area according to a given site.
- Practice techniques for raising soil beds and creating ridges ('konka' + 'gefun') around the plants transplanted in your garden area.
- Lay an irrigation system for your garden area as per given plan.

## Evidence of Practical Work

**A - 7** Practice routine work that is important for garden upkeep.

- Maintain a given garden area over a period of time under supervision.
- Conduct a given pruning task under supervision.

## Evidence of Practical Work

**A - 8** Undertake tasks leading to a healthy fish tank that is visually pleasing.

- Set-up an aquarium with the necessary equipment and décor.
- Prepare an aquarium to make it suitable to host the given biota.
- Maintain an aquarium for a period of time.

## Evidence of Practical Work

### A – 9 Record results of an animal health check.

- Conduct a health check for a given animal using basic veterinary nursing equipment.
- Record the results of an animal health checklist to assess overall health status of a given animal.

## Evidence of Practical Work

**A – 10** Assist your teacher during an animal grooming activity.

- Select the correct tools the teacher asks you to prepare.
- Assist in the handling and grooming task following instructions given by your teacher.
- Maintain grooming tools appropriately following instructions.

## Evidence of Practical Work

### A – 11 Practice basic apicultural tasks.

- Wear the appropriate apicultural PPEs successfully as part of your preparation to access the apiary.
- Set-up a beehive correctly to be able to host a bee colony.
- Light-up a bee smoker safely.
- Follow instructions to conduct a beehive inspection under supervision.



## Evidence of Practical Work

**A – 12** Practice tasks involved in the running of layer hens.

- Collect eggs and store appropriately.
- Clean and disinfect chicken coop including the drinker/feeder system.
- Replenish feeders and drinkers appropriately.

## End of Year 10 Evaluation

Which of the practical task did you find most interesting and why?

---

---

---

---

---

---

Which practical task did you find challenging and why?

---

---

---

---

---

---

Was there a practical task that you disliked. If yes, why?

---

---

---

---

---

---

Mark (max. 5):

Name of teacher:

Signature of teacher:

# SECTION C:

## Year 11



## Evidence of Practical Work

**A – 13** Produce a range of cottage industry products under supervision.

- Prepare ingredients and containers for the preparation of a range cottage industry products under supervision.
- Process and transfer to suitable packaging a range of cottage industry products under supervision.
- Label a range of cottage industry products under supervision.

## Evidence of Practical Work

**A – 14** Produce a range of crops that will be used for the preparation of cottage industry products.

- Sow/transplant a range of crops that will be used for the preparation of cottage industry products.
- Maintain a range of crops until maturity that will be used for the preparation of cottage industry products.
- Harvest crops that will be used for the preparation of cottage industry products.

## Evidence of Practical Work

**A – 15** Apply fertiliser following instructions under supervision.



## Evidence of Practical Work

**A – 16** Practice tasks involved in the running of a rabbitry.

- Remove any debris stuck to the wire and the accessories in cages.
- Clean and disinfect the rabbitry including the drinker/feeder system.
- Replenish feeders and drinkers (where applicable) appropriately.

## **Evidence of Practical Work**

**A – 17** Conduct tasks relevant to producing rabbits under supervision.

- Examine a rabbit to determine its sex and health condition.
- Select a suitable breeding pair of rabbits.
- Follow instructions to carry out tasks required for a rabbit breeding programme.

## End of Year 11 Evaluation

1. Which of the practical task did you find most interesting and why?

---

---

---

---

---

---

2. Which practical task did you find challenging and why?

---

---

---

---

---

---

3. Was there a practical task that you disliked. If yes, why?

---

---

---

---

---

---

Mark (max. 5):

Name of teacher:

Signature of teacher:

# SECTION D:

## End of course



**1. My favourite topics (2) of the subject are... and why?**

---

---

---

---

---

**2. The topics I dislike (2) in the subject are... and why?**

---

---

---

---

---

**3. The AVC Agribusiness course helped me develop these skills?**

---

---

---

---

---

**4. Would I further my studies in Agribusiness or pursue a career within this sector? Why?**

---

---

---

---

---

## End of Year 11 total portfolio mark

End of course evaluation mark (max. 5):

End of year 11 evaluation mark (max. 5):

Total (max. 10):

Name of teacher:

Signature of teacher:

# MARKING SCHEME FOR SELF-EVALUATION EXERCISE – AVC AGRIBUSINESS

End of year evaluation relevant to Section A - Year 9, Section B - Year 10 and Section C - Year 11

## Year/Unit evaluation correction rubric

1 mark	2 marks	3 marks	4 marks	5 marks
<ul style="list-style-type: none"> <li>- Attempted 1 out of 3 questions.</li> <li>- Attempt included an answer that is backed with an explanation.</li> <li>- Argument/s is/are relevant to respective unit.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted 2 out of 3 questions.</li> <li>- 2 attempts included an answer that is backed with an explanation.</li> <li>- 1 out of 3 arguments are relevant to respective unit.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- 2 out of 3 attempts included an answer that is backed with an explanation.</li> <li>- 1 out of 3 arguments are relevant to respective unit.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- 2 out of 3 attempts included an answer that is backed with an explanation.</li> <li>- 2 out of 3 arguments are relevant to respective unit.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- All arguments are relevant to respective unit.</li> </ul>

## Section D – End of Course

## Course evaluation correction rubric

1 mark	2 marks	3 marks	4 marks	5 marks
<ul style="list-style-type: none"> <li>- Attempted 2 out of 4 questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- Most arguments are relevant to course.</li> <li>- Student identifies strengths and weaknesses in a very limited manner.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted 3 out of 4 questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- Most arguments are relevant to course.</li> <li>- Student somewhat identifies strengths and weaknesses.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- Most arguments are relevant to course.</li> <li>- Student somewhat identifies strengths and weaknesses.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- Most arguments are relevant to course.</li> <li>- Student clearly identifies strengths and weaknesses.</li> </ul>	<ul style="list-style-type: none"> <li>- Attempted all questions.</li> <li>- All attempts included an answer that is backed with an explanation.</li> <li>- All arguments are relevant to course.</li> <li>- Student clearly identifies strengths and weaknesses.</li> </ul>

## Marks to be inserted in My School portal

End of Year 9	Section A mark	Maximum = 5 marks
End of Year 10	Section B mark	Maximum = 5 marks
End of Year 11	Section C + Section D mark	Maximum = 10 marks



## ANNEXE A – UNIT DISTRIBUTION PLAN TEMPLATE

## Unit Distribution Plan for Scholastic Year \_\_\_\_\_

### Assignment 1

Period	Activity	Persons involved
	Writing Assignment Brief 1	
	Handing over of Assignment Brief 1 to IV	
	Internal Verification of Assignment Brief 1	
	Assignment Brief 1 issued	
	Assignment Brief 1 deadline	
	Correction of Assignment 1	
	Handing over of Students Work for Assignment 1 to IV	
	Internal Verification of Students Work for Assignment 1	
	Moderation	

### Assignment 2

Period	Activity	Persons involved
	Writing Assignment Brief 2	
	Handing over of Assignment Brief 2 to IV	
	Internal Verification of Assignment Brief 2	
	Assignment Brief 2 issued	
	Assignment Brief 2 deadline	
	Correction of Assignment 2	
	Handing over of Students Work for Assignment 2 to IV	
	Internal Verification of Students Work for Assignment 2	
	Moderation	

### Controlled Assessment

Period	Activity	Persons involved
	Controlled Assessment is held	
	Correction of Controlled Assessment	
	Handing over of Students Controlled Assessment to IV	
	Internal Verification of Students Controlled Assessment	
	Moderation	

## ANNEXE B - MINIMUM RESOURCES TO OFFER SUBJECT WITHIN SCHOOLS

### General Agricultural Requirements

<ul style="list-style-type: none"> <li>- Preferably, minimum 2 tumuli of arable land and suitable for cultivation</li> <li>- Greenhouse</li> <li>- Propagation house</li> <li>- Manure clamp</li> <li>- Storage for agricultural machinery and workshop</li> </ul>	<ul style="list-style-type: none"> <li>- Adequate supply of second-class water for irrigation</li> <li>- Storage for agricultural tools</li> <li>- Storage for fertiliser and pesticides</li> <li>- Storage for fodder and animal feed</li> </ul>
--	---

### Ancillary Requirements

<ul style="list-style-type: none"> <li>- Dressing rooms with lockers and WC for teachers</li> <li>- Dressing rooms with lockers and WC for technical staff</li> <li>- Dressing rooms with lockers and WC for students</li> <li>- Access to water fountains</li> </ul>	<ul style="list-style-type: none"> <li>- Classroom with interactive monitor or LCD projector</li> <li>- Access to science laboratory</li> <li>- Access to food lab</li> <li>- Washing machine</li> <li>- Tumble drier</li> </ul>
---	--

### Rabbitry

<ul style="list-style-type: none"> <li>- EU standard flat deck breeder cages</li> <li>- Ventilation system with circulation and extraction.</li> <li>- Fly zapper</li> <li>- White board</li> <li>- Rabbit scales up to 10kg</li> <li>- Hygrometer and thermometer</li> </ul>	<ul style="list-style-type: none"> <li>- Drainage system to cesspit</li> <li>- Buffer tank min. 20 litres</li> <li>- Lighting fixtures with timer</li> <li>- Sink - with hot and cold water</li> <li>- Rabbit cages with nest boxes, feeder and automatic nipple drinkers</li> </ul>
---	--

### Fish Room

<ul style="list-style-type: none"> <li>- Aquaria with different capacities complete with light, filters, decor and heaters</li> <li>- Aquarium thermometers</li> <li>- Aquarium immersion heaters</li> <li>- Water testing sets</li> <li>- Aquarium magnetic glass cleaners</li> <li>- Fish nets</li> </ul>	<ul style="list-style-type: none"> <li>- Aquarium submersible pump for water changes</li> <li>- Air pumps</li> <li>- Aquascaping substrates</li> <li>- Aquascaping thongs, scissors and pincers</li> <li>- Clip-on lighting</li> <li>- White board</li> </ul>
---	---

### Tools and machinery

<ul style="list-style-type: none"> <li>- String trimmer</li> <li>- Fuel transport tanks</li> <li>- Irrigation pipe punches</li> <li>- Sprayer</li> <li>- Industrial bins</li> <li>- Manual sulfurator</li> <li>- Pesticide face masks</li> <li>- Grass cutting aprons</li> <li>- Earmuffs</li> </ul>	<ul style="list-style-type: none"> <li>- Inter row cultivator</li> <li>- Hedge trimmer</li> <li>- Chain saw</li> <li>- Shovel head hoes (zappun)</li> <li>- Hoes (mgħażqa)</li> <li>- Fork hoes</li> <li>- Dibbers</li> <li>- Riddles</li> <li>- Rakes</li> </ul>
--	---

- Grass cutting visors
- Wheel burrow
- Watering cans
- Min. 8.5Hp rotovator
- Pocket knives
- Hammer
- Sledgehammer
- Side cutter
- Heavy duty craft knife
- Wire brushes
- Large shifting spanner
- Hack saw
- Screw drivers set
- Irrigation pipes and several fittings
- Ball valves
- Submersible/centrifugal irrigation pump and several fittings
- Adjustable fertiliser dozers
- Irrigation timers
- Irrigation tubing of various diameters
- Drip tape
- String line

- Pruning shears (secateurs)
- Lopper
- Shovels
- Garden trowels
- Grafter knives
- Pruning saws
- Folding hand saws
- Lineman Pliers
- Spanner set
- Allen keys
- Socket ratchet
- Heavy duty shelving
- Adjustable spanner
- Drill bits
- Measuring tapes
- Cordless hammer drill
- PVC pipe cutter
- Gas flame torch burner
- Refillable LPG cylinder
- Agricultural sprinklers (friefet)
- Heavy duty weighing scale (100kg +)

### Scientific Apparatus

- Soil testing kit
- pH soil/temp probe
- One-piece regular soil auger
- Digital balance
- Glass beakers
- Hand magnifiers
- Retort Stands and clamps
- Glass rods
- Wash bottles
- Filter papers
- Safety glasses
- Stainless steel spatulas
- Plastic test tube racks
- Wooden test tube holder
- Soda glass boiling tubes with rim
- Economy test tubes (16x100mm)
- Digital microscope and slides

- Gratnell trays
- Student dissection kit
- Measuring cylinders (circa. 10ml, 100ml)
- Disposable Pasteur pipettes
- Glass funnels
- Conical flasks
- Test tubes brushes
- Hotplate
- First Aid boxes
- Eye washing station
- Dicot flower model
- Fish model
- Chicken model
- Rabbit model
- Handheld EC/TDS metre
- Handheld pH metre
- Digital weather station

### Animal grooming and health

- Grooming table
- Veterinary table
- UV steriliser
- Nail cutter
- Coat brushes
- Clipper
- Coat trimming shears
- Coat combs

- Stripping knives
- Pet coat drier with variable speed
- Stethoscope
- Pet thermometer
- Vaccine injector
- Bathing station

## Apiculture

<ul style="list-style-type: none"><li>- Complete beehive boxes with supers</li><li>- Nucleus boxes</li><li>- Rapid bee feeders</li><li>- Frame wire</li><li>- Wire crimper</li><li>- Wire embedder</li><li>- Smoker and fuel</li><li>- Hive tools</li><li>- Centrifugal honey extractor</li></ul>	<ul style="list-style-type: none"><li>- Honey ripener</li><li>- Honey strainer</li><li>- Uncapping knives</li><li>- Queen excluders</li><li>- Ventilated full body suits</li><li>- Bee keeping veils</li><li>- Bee keeping jackets</li><li>- Beekeepers' gloves</li><li>- Convection oven</li></ul>
---	---

## Poultry

<ul style="list-style-type: none"><li>- Free range or barn or EU standard cage system for layer hens</li><li>- Poultry drinkers</li><li>- Poultry feeders</li><li>- Chick drinkers</li><li>- Chick feeders</li></ul>	<ul style="list-style-type: none"><li>- Hen nesting box</li><li>- Electric brooder</li><li>- Egg candler</li><li>- Poultry crates</li><li>- Egg cartons</li><li>- Automated incubator</li></ul>
--	---

## General pets

<ul style="list-style-type: none"><li>- Dwarf rabbit cages</li><li>- Small rodent cages</li><li>- Aviary</li><li>- Claw trimmer</li></ul>	<ul style="list-style-type: none"><li>- Dog/cat transport cage</li><li>- Bird cages</li><li>- Bird nesting boxes for available cages</li><li>- Feeder/drinker equipment</li></ul>
---	---

## Cottage industry

<ul style="list-style-type: none"><li>- Access to food lab</li><li>- Sugar thermometers</li><li>- Stainless steel funnels (various sizes)</li><li>- Minimum 5kg weighing scales</li></ul>	<ul style="list-style-type: none"><li>- Digital food thermometer</li><li>- Food processor</li><li>- Fine mesh strainers</li><li>- Minimum 2000mL measuring jug</li></ul>
---	--

*NB: Provided list of resources includes minimum requirements and thus, not exhaustive. Quantities of listed equipment should reflect number of students studying the subject. List does not include any consumable items and livestock.*