EXAMINATIONS COUNCIL
OF ESWATINI

# Syllabus

For Examination in 2027

# Agriculture

JC

Junior Certificate
Examination

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## INTRODUCTION

The Junior Certificate (JC) syllabus is designed as a three-year course for examination in Form 3. Agriculture is an applied science. This being the case, it follows that for assessment to be consistent with teaching and learning situations, it should also be learner-centred and activity based.

The economy of Eswatini is largely dependent on agriculture. Agriculture forms the backbone of the country's economic activity. Agriculture in Eswatini, as a subject, plays an important role in shaping attitudes and developing knowledge and skills that contribute to the development of the agriculture industry. The approach to handling the subject in the schools allows candidates to develop and engage in practical activities while following scientific principles and using the environment sustainably.

The main sections of the syllabus are:

Aims

Assessment Objectives
Assessment Curriculum
Content

## AIMS

The aims of the syllabus are the same for all candidates. These aims are set out below and describe the educational purposes of a course in Agriculture for the JC Examination. They are not listed in order of priority.

**The aims are to enable candidates to:**

1. demonstrate the value of agriculture to the family and community, and show how agriculture can contribute to the world-wide campaign for poverty alleviation and food security;
2. develop initiative and self-education so as to encourage resourcefulness and self-reliance;
3. develop desirable values and attitudes towards the country's natural resources for sustainable agricultural development;
4. provide a background, together with basic sciences, mathematics and other relevant subjects for more advanced studies in agriculture;
5. promote awareness of the impact of HIV/AIDS on agricultural production;
6. create awareness of existing problems so as to stimulate problem solving abilities;
7. ensure that the learning of agriculture integrates with development agencies;
8. promote gender equity in the learning activities, by recognising the realities of the roles played in agriculture.

## ASSESSMENT OBJECTIVES

**Assessment Objectives in Agriculture are:**

**A.** Knowledge with Understanding

**B.** Handling Information and Solving Problems

**C.** Practical Skills and Abilities

The assessment will include, wherever appropriate, personal, social, environmental, economic and technological applications of agriculture in modern society and contemporary issues (gender, HIV/AIDS and entrepreneurship).

A description of each assessment objective follows:

**A.** KNOWLEDGE WITH UNDERSTANDING

Candidates should be able to demonstrate knowledge and understanding in relation to the use of:

**1.** language (terms, symbols, quantities and units);

**2.** facts, concepts, principles, patterns, models and theories;

**3.** techniques, procedures and principles of safe agricultural practice.

**B. HANDLING INFORMATION AND SOLVING PROBLEMS**

Candidates should be able, in words or using other written forms of presentation (i.e., symbolic, graphical and numerical), to:

**1.** locate, select, organise and present information from a variety of sources;

**2.** translate information from one form to another;

**3.** use information (data) to identify patterns, report trends and draw inferences;

**4.** present reasoned explanations for phenomena, patterns and relationships;

**5.** solve problems, including some quantitative and qualitative nature.

**C. PRACTICAL SKILLS AND ABILITIES**

Candidates should be able to:

**1.** organise, develop and use techniques, apparatus and materials;

**2.** make and record observations and measurements;

**3.** interpret and evaluate experimental observations and data;

**4.** make predictions and plan investigations.

## SPECIFICATION GRID

The approximate weightings allocated to each of the assessment objectives in the assessment model are summarised in the table below.

| | Assessment Objectives | Weighting |
|---|---|---|
| **A** | Knowledge with understanding | 30% (not more than 15% recall) |
| **B** | Handling information and solving problems | 45% |
| **C** | Practical skills and abilities | 25% |

The assessment objectives are weighted to give an indication of their relative importance. The percentages are not intended to provide a precise statement of the number of marks allocated to particular assessment objectives.

## ASSESSMENT

### Scheme of Assessment

Assessment in this programme comprises of school-based assessment and external examination at the end of Form 3. Candidates are expected to engage in all assessment activities. Paper 1 and Paper 2 are written papers based on all the content as described in the syllabus. Paper 3 will be a school-based continuous assessment comprising of practical activities and guided write-up reports.

### Description of the Papers

| **Paper 1** (1 hour) has a total of 40 marks. |
|---|
| This paper consists of 40 multiple choice questions worth 1 mark each. All questions are compulsory.<br>This paper is weighed at 20% of the final total available marks. |
| **Paper 2** (1 hour 45 minutes) has a total of 100 marks |
| This paper consists of two sections, **Section A and Section B.**<br>**Section A** consists of 12 structured questions worth 5 - 6 marks each. Candidates will be required to answer all questions.<br>**Section B** consists of 3 essay type questions and candidates are required to answer 2 questions worth 15 marks each.<br>This paper is weighed at 40% of the final total available marks. |
| **Paper 3 Practical Activities and Guided Write-up reports** consists of 100 marks. |
| Candidates will undertake two practical activities; one from vegetable crops or field crops and<br>one from livestock production marked out of 60 marks; and be required to produce a guided write-up report from each of the two practical activities marked out of 40 marks.<br>The practical activities and the guided write-up reports will be assessed by teachers. See 'Assessment Criteria under **Appendix 1**<br>This paper is weighted at 40% of the total available marks. |

### Weighting of Papers

| Paper | Weighting |
|---|---|
| 1 | 20% |
| 2 | 40% |
| 3 | 40% |

## Curriculum Content

| Topic | Objectives<br>Candidates should be able to: |
|---|---|
| **1. General Agriculture** | |
| 1.1 Farming systems | 1.1.1 Define farming systems (subsistence, commercial).<br>1.1.2 Discuss advantages and disadvantages of the farming systems (subsistence, commercial).<br>1.1.3 Define the farming practices (mono-cropping, intercropping, mixed farming, crop rotation).<br>1.1.4 Discuss farming practices (mono-cropping, intercropping, mixed farming, crop rotation). |
| 1.2 HIV/AIDS | 1.2.1 Discuss the impact of HIV/AIDS on agricultural productivity.<br>▪ Labour<br>▪ Economy |
| 1.3 Agriculture programmes | 1.3.1 Outline national agricultural policies (water act, crop and livestock movement act).<br>1.3.2 State possible career opportunities in agriculture. |
| **2. Agriculture Technology** | |
| 2.1 Agricultural tools and safety | 2.1.1 Identify agricultural tools.<br>2.1.2 Describe the use and maintenance of agricultural tools.<br>2.1.3 Discuss safety measures when using tools. |
| 2.2 Farm implements | 2.2.1 Identify agricultural implements.<br>2.2.2 State the use of agricultural implements.<br>2.2.3 Discuss the use of mechanical devices (wheelbarrow, trailer). |
| **3. Environmental Issues** | |
| 3.1 Climate | 3.1.1 Outline the impact of climate change on agricultural activities.<br>3.1.2 Discuss environmental factors affecting growth and development of plants and animals (temperature, wind, rainfall and humidity) and how they can be modified. |
| 3.2 Pollution | 3.2.1 Define pollution.<br>3.2.2 Discuss types of pollution (air, water, soil).<br>3.2.3 Explain the impact of pollution on agricultural production (air, water, soil). |

| | |
|---|---|
| 3.3 Desertification | 3.3.1 Define desertification.<br>3.3.2 Describe the causes of desertification.<br>3.3.3 Explain how desertification can be controlled. |
| 3.4 Biodiversity | 3.4.1 Define biodiversity.<br>3.4.2 Discuss the importance of biodiversity.<br>3.4.3 Outline general characteristics of invasive plants<br>3.4.4 Identify invasive plant species (Triffid weed, Mauritius thorn, *Lantana camara*, Bugweed |
| **4. Vegetable Production** | |
| 4.1 Land preparation | 4.1.1 Describe land reclamation for vegetable production.<br>4.1.2 Discuss soil preparation for vegetable production.<br>4.1.3 Discuss factors considered when selecting suitable varieties.<br>4.1.4 Outline steps followed when planting vegetables indirect and direct, including advantages and disadvantages of each method. |
| 4.2 4.2 Management of Vegetables | 4.2.1 Discuss the following vegetable management practices:<br>• Replacing transplants<br>• Watering<br>• Mulching<br>• Weeding<br>• Fertiliser application<br>• Pest and disease control (cultural, chemical, biological, integrated)<br>4.1.5 Harvesting |

| | |
|---|---|
| **5. Plant growth and development** | |
| 5.1 Plant processes | 5.1.1 Discuss reproduction in plants; including germination and root development<br>5.1.2 Photosynthesis<br>• Define photosynthesis.<br>• State the word equation;<br>• Discuss factors affecting photosynthesis;<br>5.1.3 Respiration<br>• Define respiration in plants;<br>• State the word equation;<br>• Discuss factors affecting respiration.<br>5.1.4 Transpiration<br>• Define transpiration;<br>• Discuss factors affecting transpiration.<br>• Discuss the importance of transpiration |

| | |
|---|---|
| **6. Soils** | |
| 6.1 Soil texture | 6.1.1 Describe different types of soil texture. |
| 6.2 Soil structure | 6.2.1 Define soil structure.<br>6.2.2 Describe a crumb soil structure.<br>6.2.3 Explain how a good soil structure is maintained. |
| 6.3 Soil fertility | 6.3.1 Define soil fertility<br>6.3.2 State major and minor nutrients.<br>6.3.3 Describe the functions and deficiency symptoms of major plant nutrients (NPK).<br>6.3.4 Explain how soil fertility can be improved.<br>6.3.5 Describe the types of organic fertilisers (green manure, compost and animal manure).<br>6.3.6 Explain how compost is made.<br>6.3.7 Outline soil sampling procedure and pH test<br>6.3.8 Discuss the effects of soil pH on plant growth. |
| 6.4 Soil erosion | 6.4.1 State the agents of erosion.<br>6.4.2 Describe causes of soil erosion.<br>6.4.3 Discuss the soil conservation measures. |
| 6.5 Land use | 6.5.1 Describe the eight land classes and their uses in the Kingdom of Eswatini.<br>6.5.2 Calculate percentage slope. |
| **7. Field crops production** | |
| 7.1 Growing and processing | 7.1.1 Define field crops.<br>7.1.2 Identify suitable field crops for a given area.<br>7.1.3 Identify methods of planting field crops.<br>7.1.4 Describe importance, planting, management, and processing of the following crops:<br>• Grain - maize and sorghum;<br>• Legume - beans and groundnuts;<br>• Tuber - sweet potato and Irish potato;<br>• Cash crop - tobacco and cotton;<br>7.1.5 Describe signs of readiness for harvest for each of the field crops in 7.1.4. |
| 7.2 Storage | 7.2.1 Describe methods for field crops storage (refer to 7.1.4)<br>7.2.2 Describe practices that minimize crop losses |

| **8. Animal production** | |
|---|---|
| 8.1 Chickens | 8.1.1 Describe factors considered when choosing a site for a chicken house.<br>8.1.2 Describe features of an ideal poultry house.<br>8.1.3 State the equipment used when keeping;<br>• Broilers<br>• Layers<br>8.1.4 State the three systems of keeping chickens (intensive, semi-intensive and extensive)<br>8.1.5 Discuss the preparation for the arrival of broilers and layers.<br>8.1.6 Describe management of chickens (broilers, layers, indigenous) including:<br>• Brooding<br>• Feeding<br>• Vaccinating<br>• Egg collection and storage<br>• Record keeping<br>• Disease prevention and control measures<br>8.1.7 Describe chicken diseases<br>• Viral (Newcastle, Fowl pox)<br>• Bacterial (Coryza, Chronic respiratory)<br>• Parasite (Coccidiosis, Lice)<br>8.1.8 State the chicken vices (cannibalism, egg eating)<br>8.1.9 Describe factors affecting egg production.<br>8.1.10 Describe slaughtering and dressing of a chicken.<br>8.1.11 State the importance of indigenous chickens. |
| 8.2 Apiculture | 8.2.1 State the importance of honey bees.<br>8.2.2 Explain the reproduction process in honey bees.<br>8.2.3 Explain communication in honey bees.<br>8.2.4 List the honey bee keeping equipment.<br>8.2.5 Explain factors considered when establishing an apiary.<br>8.2.6 Describe safety precautions in keeping honey bees.<br>8.2.7 Describe management practices (hive inspection, locating the queen, feeding, controlling pests and diseases, harvesting) in bee keeping.<br>8.2.8 Discuss marketing of honey bee products. |

| Topic | Objectives |
|---|---|
| | **Candidates should be able to:** |
| 8.3 Cattle | 8.3.1 State importance of cattle farming (economic, social, cultural).<br>8.3.2 Discuss types of records (production, health, financial) for cattle farming.<br>8.3.3 Describe the characteristics of cattle breeds (Nguni, Brahman, Afrikander, Jersey, Friesian).<br>8.3.4 Describe methods of breeding cattle (natural mating and artificial).<br>8.3.5 Describe management practices of cattle (identification, castration, dehorning, parasites and disease control). |
| 8.4 Rabbits | 8.4.1 State economic importance of rabbit.<br>8.4.2 State the factors to consider when buying rabbit breeding stock.<br>8.4.3 Identify breeds of rabbits suitable for commercial purposes (New Zealand white, New Zealand red, Californian, Chinchilla giant, Flemish giant).<br>8.4.4 Describe the digestive system of a rabbit (structure, process, functions of organs).<br>8.4.5 Identify equipment used in rabbit production.<br>8.4.6 Describe breeding systems/practices in rabbits (inbreeding, crossbreeding, outbreeding).<br>8.4.7 Describe the management practices in rabbit production:<br>• mating<br>• pregnancy, including test mating and palpating<br>• kindling and fostering<br>• feeding<br>• weaning<br>• sexing<br>• control of diseases, parasites and vices<br>• record keeping<br>8.4.8 Describe the slaughtering and dressing of rabbits, including curing of skin.<br>8.4.9 Describe the marketing of rabbit products. |
| 8.5 Goats | 8.5.1 State the importance of goats (economic, social, cultural, nutritional).<br>8.5.2 Identify breeds of goats suitable for breeding purposes (Nguni, Angora, Kalahari red, Boer, Saanen, Toggenburg).<br>8.5.3 State factors to consider when buying breeding stock. |

| | |
|---|---|
| | 8.5.4 Describe the management practices (record keeping, disbudding, hoof trimming, milking, tethering, fencing, feeding, controlling parasites and diseases) in goat production.<br>8.5.5 Describe breeding in goats (heat cycle, signs of heat, mating).<br>8.5.6 Describe the digestive system in terms of structure, process and functions of organs in goats.<br>8.5.7 Describe the slaughtering and dressing of goats. |
| **Topic** | **Objectives** |
| **9** | **Candidates should be able to:** |
| 9.1 Pasture Management | 9.1.1 Define a pasture.<br>9.1.2 Describe characteristics of pastures (natural, cultivated).<br>9.1.3 Identify suitable natural pasture grasses (Guinea grass, weeping love grass and couch grass); and legumes (silver leaf desmodium, stylogracillis).<br>9.1.4 Describe the production, harvesting, storage and use of cultivated grasses (rye, kikuyu); and cultivated legumes (Lucerne, leucaena).<br>9.1.5 Describe the control of invasive pasture weeds (refer to 3.4.4).<br>9.1.6 Describe veld management practices (fertilising/ liming, weeding, reseeding, irrigation, burning, stocking rate, controlled grazing).<br>9.1.7 Identify supplementary feed for livestock (hay, silage, foggage, concentrates, mineral licks).<br>9.1.8 Define stocking rates, carrying capacity, overstocking, understocking. |

| **10 Agro-forestry** | |
|---|---|
| 10.1 Management of agro-forestry | 10.1.1 Define agro-forestry.<br>10.1.2 Outline importance of agro-forestry (environmental, economic).<br>10.1.3 Identify suitable site for agro-forestry.<br>10.1.4 Discuss factors to consider when practising agro-forestry.<br>10.1.5 Discuss the establishment of a nursery.<br>10.1.6 Describe steps followed when preparing a planting hole for fruit tree seedlings.<br>10.1.7 Describe steps followed when planting fruit trees.<br>10.1.8 Explain the management practices of fruit trees (watering, weeding, pruning, fertilising, control of pests and diseases, harvesting).<br>10.1.9 Outline the marketing of fruit tree products. |
| **11. Farm Business** | |
| 11.1 Farm business activities | 11.1.1 Outline the importance of planning in farm business.<br>11.1.2 Outline the importance of keeping records in a farm enterprise.<br>11.1.3 Prepare a budget for a farm enterprise.<br>11.1.4 Describe the decision-making process in farm business.<br>11.1.5 Prepare cash book, profit and loss account for a crop and livestock enterprises.<br>11.1.6 Describe the marketing process.<br>11.1.7 Describe the importance of marketing mix (place, price, product, promotion) in farm business. |

## Appendix 1: PRACTICAL SKILLS

### Introduction

Paper 3 is a teacher-assessed continuous assessment of the candidate's practical work. The Teacher, who is responsible for allocating marks, is required to submit the complete schedule of all marks for the purposes of moderation. The total marks available for the assessment of the practical project over the three-year course is 100. There shall be two practical projects worth **60** marks and two guided reports based on the project worth **40** marks.

### Aim

The teacher's assessment of practical work should aim at evaluation of skills and abilities essential to the study of Agriculture that are not suitably measured by theory examinations. These fall mainly into Assessment Objective C.

### Moderation

- When several teachers in a Centre are involved in internal assessments, arrangements must be made within the Centre for all candidates to be assessed to a common standard.
- It is essential that, within each Centre, the marks for each skill assigned within different teaching groups (e.g., different classes) are moderated internally for the whole Centre entry.
- The Centre assessments will then be subject to external moderation.
- Individual Candidate Record Cards and Coursework Assessment Summary Forms will be provided by the Examinations Council of Eswatini (ECESWA) and must be submitted to ECESWA by the official deadline, along with a representative sample of work and a teacher’s file with the instructions for the practical work and the schemes of assessment.
- If there are ten or fewer candidates, all the work that contributed to the final mark for all the candidates must be submitted. Where there are more than ten candidates, all the work that contributed to the final mark for the sampled candidates will be required. Where more than one teacher is involved in marking the work, the sample must include candidates marked by all teachers. Candidates must be selected so that the whole mark range is covered, with marks spaced as evenly as possible from the top mark to the lowest mark.

**NOTE**: All records and supporting written work for the unsampled candidates should be retained at the Centre until the publication of results.

**1. Responsibility** [the ability to assume responsibility for the task in hand, and work from given instructions without detailed supervision and help]

| Marking guide | Marks |
|---|---|
| • follows written or verbal instructions without the need for help<br>• carries out appropriate safety procedures<br>• works well in a group, assumes responsibility easily and leads in the group | 5 or 4 |
| • follows written or verbal instructions with a little help<br>• is aware of the need for safety procedures but has difficulty in recognizing them without guidance<br>• works within the group, shows responsibility for the work with little help | 3 or 2 |
| • follows written or verbal instructions with considerable help<br>• shows little regard for safety procedures, even when told<br>• works alone, shows some responsibility for the work with considerable help | 1 or 0 |

**2. Initiative** [the ability to cope with problems arising in connection with the task to see what needs to be done and to take effective action]

| Marking guide | Marks |
|---|---|
| • offers solutions or explanations for unexpected problems<br>• recognizes, and is able to anticipate problems<br>• solve problems without help<br>• comments on imperfections of practical work<br>• can plan an investigation involving variables and a control | 5 or 4 |
| • offers solutions or explanations for unexpected problems after seeking advice<br>• recognizes faults in experimental methods, given some indicators<br>• solve problems with help<br>• comments on imperfections of practical work with help<br>• can plan an investigation with help | 3 or 2 |
| • is uncertain how to proceed and requires considerable help<br>• recognizes only the most obvious errors in experimental methods after considerable guidance<br>• solve problems with considerable help<br>• comments on imperfections of practical work with considerable help<br>• can plan an investigation, but in outline only | 1 or 0 |

**3. Technique** [the ability to tackle a practical task in a methodical, systematic way and to handle tools skilfully and to good effect]

| Marking guide | Marks |
|---|---|
| • approaches tasks carefully and systematically<br>• handles tools/apparatus skilfully and confidently<br>• carries out practical procedures with skill | 5 or 4 |
| • approaches tasks carefully and systematically with some help<br>• handles tools /apparatus effectively with some help<br>• carries out practical procedures adequately with some help | 3 or 2 |
| • approaches tasks carefully and systematically with considerable help<br>• handles tools /apparatus awkwardly<br>• carries out practical procedures with difficulty | 1 or 0 |

**4. Perseverance** [the ability to see a task through to a successful conclusion with determination and sustained effort]

| Marking guide | Marks |
|---|---|
| • completes all the required practical tasks and attends to written work<br>• has a positive attitude and is well motivated<br>• carries out repetitive procedures willingly | 5 or 4 |
| • completes the required practical tasks and attends to written work with a little encouragement<br>• has a positive attitude but requires some motivation<br>• carries out repetitive procedures with some help | 3 or 2 |
| • does not complete the required practical tasks and attends to written work. Is somewhat disinterested /impatient when carrying out work and is disinclined to repeat procedures<br>• has a positive attitude but requires some considerable motivation<br>• carries out repetitive procedures with considerable help | 1 or 0 |

**5. Quality** [the ability to attend to detail, so that the work is well finished and is well presented]

| Marking guide | Marks |
|---|---|
| • performs practical work thoroughly, pays attention to detail and produces, a very good final result<br>• produces accurate, clear and neatly presented written work | 5 or 4 |
| • performs practical work thoroughly for the most part and produces, a satisfactory to good final result with some assistance<br>• produces mostly accurate and clearly presented written work with some help | 3 or 2 |
| • performs practical work in a rushed and superficial way and shows little concern for the finished product<br>• produces inaccurate and poorly presented written work | 1 or 0 |

**Layout of the Guided Write-up Report**

Candidates will be required to produce two guided write-up reports from two practical activities and will be marked out of 40 marks.

**Title:** The report should bear a clear title. This should appear on the first page, together with the name of the candidate and the name of the school.

**Contents:** A list of contents or topics should be included, showing clearly the main sections of the report and the numbers of pages where they appear. Lists of tables, graphs and photographs can also be included, if appropriate.

**Introduction**: This should state the objective(s) of the project, describe briefly the plans for carrying out the project, the materials to be used and preparations for the project.

**Materials Used**

This includes tools, equipment and inputs when carrying out the project.

**Preparations**

This includes land preparation, orders of inputs, livestock house preparation, chick's orders and sourcing, budgeting etc.

**Management Activities:** This is a description of how the project was done after completing the preparations. e.g. (vegetables/crops/livestock).

**Presentation of data and findings of the project:** Data collected could be presented in the form of labelled tables, charts, graphs or histograms. A description and interpretation of data should be provided (findings).

**Conclusions:** Problems encountered while carrying out the project should be noted and suggestions should be made for improvements**.** The conclusions of the report should be noted and suggestions should be summarized in a paragraph.

## JC AGRICULTURE GUIDED WRITE-UP REPORT MARKING GUIDE PAPER 3

### Objectives

| Marking Guide | Marks |
|---|---|
| • Four objectives clearly stated. | 4 |
| • Three objectives clearly stated.<br>• Two objectives clearly stated. | 3 - 2 |
| • One objective clearly stated.<br>• No clear objective. | 1 - 0 |

### Materials used

| Marking Guide | Marks |
|---|---|
| • Minimum of four points on the preparation of enterprise with explanation.<br>• Minimum of four points on the preparation of enterprise with<br>• some preparation procedures explained.<br>• Three points of preparation with explanation of the purpose of the activities. | 8 - 6 |
| • Three points of preparation with some of the activities explained and some not explained.<br>• Two points with explanation of the purpose of the activities in preparation.<br>• Two points without their explanation in the enterprise. | 5 - 3 |
| • A point on the preparation indicated and explanation given.<br>• A point on preparation of the enterprise without explanation.<br>• Preparation procedure of the enterprise not indicated and explained. | 2 - 0 |

### Presentation

| Marking Guide | Marks |
|---|---|
| • All four objectives met with evidence plus explanation.<br>• All four objectives met with evidence but one was not explained.<br>• Three objectives met with evidence plus explanation. | 8 - 6 |
| • Three objectives met with evidence but one was not explained.<br>• Two objectives met with evidence and explanation.<br>• Two objectives met with evidence but one was not explained. | 5 - 3 |
| • One objective met with evidence and explanation.<br>• An objective met with evidence but without explanation.<br>• No objectives, no evidence of objectives met and no explanation. | 2 - 0 |

**Conclusion**

| Marking Guide | Marks |
|---|---|
| • Conclusion for four objectives given, two problems encountered, two recommendations.<br>• Conclusion for four objectives, one problem encountered, two recommendations.<br>• Conclusion for four objectives, two problems encountered, one recommendation.<br>• Conclusion for three objectives given, two problems encountered, two recommendations. | 8 - 6 |
| • Conclusion for three objectives, one problem encountered, two recommendations.<br>• Conclusion for three objectives, two problems encountered, one recommendation.<br>• Conclusion for three objectives and either a problem or a recommendation.<br>• Conclusions for two objectives, two problems, two recommendations<br>• Conclusions for two objectives, two problems, a recommendation.<br>• Conclusions for two objectives, a problem, two recommendations. | 5 - 3 |
| • Conclusion for one objective, two problems, two recommendations.<br>• Conclusion for one objective, two problems, one recommendation.<br>• Conclusion for one objective, one problem, two recommendations.<br>• Conclusion for one objective, one problem, one recommendation.<br>• No conclusion for each objective, no problem, no recommendation | 2 - 0 |

## Appendix 2: Terms used in teaching and assessment

| WORD | MEANING |
|---|---|
| **Analyse** | Examine information in detail to discover patterns or relationships |
| **Calculate** | A numerical answer is required - working must be shown |
| **Compare** | Find resemblances and differences |
| **BL** | A literal statement is required |
| **Describe** | Write down what you do, or what you would see, in as much detail as possible |
| **Discuss** | Give a critical account of the points involved in the topic |
| **Differentiate** | Show the difference between one or more variables |
| **Estimate** | Implies a reasoned statement or calculation about something |
| **Explain** | Give a reason for your answer |
| **Find** | A general term which means calculate, determine or measure |
| **Give/state** | Write down your answer |
| **Identify** | Find out what is unique about a material or situation |
| **Interpret** | Reasoning or some reference to theory, depending on the context |
| **List** | Give a number of points, generally each of one word |
| **Outline** | Give a brief answer, writing down the main points |
| **Recognise** | Be aware of a fact or problem |
| **Relate** | Find the relationship between one or more variables |
| **Select** | Choose from a number of alternatives |
| **Sketch** | In case of diagrams, make a simple, freehand drawing, and in graph work, the shape and /or position of the curve should be given |
| **Study** | Use the information or data provided to investigate a problem in a systematic way |
| **Suggest** | Use your knowledge of science and the information in the question to give what you think is the best answer |

## JC AGRICULTURE – Practical Activities (Project) Paper3 Individual Candidate Record Card

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Centre number | | | | | | Centre Name | | October | 2 | 0 | | |
| Candidate Number | | | | | | Candidate Name | | | | | | |

| Brief description of practical exercises undertaken practical activities | 1 **Responsibility (5)** | 2 **Initiative (5)** | 3 **Technique (5)** | 4 **Perseverance (5)** | 5 **Quality (5)** |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| Total to be scaled to 60 marks<br>Marks to be transferred to the practical activities and guided write-up Assessment Summary Form | /10 | /10 | /10 | /10 | /10 |
| | | | | Total | /50 |
| Marks out of X/50 x 60 = …... to summary form | | | | | |

**Instructions for completing practical activity assessment summary forms**

1. Complete the information at the head of the form.
2. Mark each practical activity for each candidate according to the instructions given in the syllabus.
3. Enter marks and total marks in the appropriate spaces.
4. Ensure that the addition of marks is independently checked.
5. Retain the un-sampled practical activities at the school.

## JC AGRICULTURE Guided Write-up Report Paper 3 Individual Candidate Record Card

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Centre number | | | | | | Centre Name | | | | | October | 2 | 0 | |
| Candidate Number | | | | | | Candidate Name | | | | | | | | |
| Brief description of practical exercises undertaken<br><br>practical activities | | | | | | **1 Objectives** **(4)** | **2 Materials used** **(4)** | **3 Preparations** **(8)** | **4 Management activities** **(8)** | **5 Presentation of data and findings** **(8)** | **6 Conclusion** **(8)** | | | |
| 1. | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | |
| Total to be scaled down to 40 marks Marks to be transferred to the practical activities and guided write-up Assessment Summary Form | | | | | | /8 | /8 | /16 | /16 | /16 | /16 | | | |
| | | | | | | | | | | | Total Marks | | | /80 |
| Total Mark X/80 x 40 =.....to summary form | | | | | | | | | | | | | | |

**Instructions for completing practical activity assessment summary forms**

1. Complete the information at the head of the form.
2. Mark each practical activity for each candidate according to the instructions given in the syllabus.
3. Enter marks and total marks in the appropriate spaces.
4. Ensure that the addition of marks is independently checked.
5. Retain the un-sampled practical activities at the school.

## JC Paper 3 Summary Sheet Agriculture Practical Activities and Guided Write-up/ Reports Form

| Centre Number | | | | | October | | | 2 | 0 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Candidate Number** | **Candidate Name** | | | | | **Practical Activities Average (60)** | **Guided Reports Average (40)** | **Total Mark (100}** | | | |
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| **Name of teacher** | | | | | | **Signature:** | **Cell:** | | | | |
| **Head teacher's Signature + Stamp** | | | | | | | | | | | |

**Instructions for completing practical activity assessment summary forms**

1. Complete the information at the head of the form.
2. Mark each practical activity for each candidate according to the instructions given in the syllabus.
3. Enter marks and total marks in the appropriate spaces.
4. Ensure that the addition of marks is independently checked.
5. Retain the un-sampled practical activities at the school.

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