



# **basic education**

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **AGRICULTURAL MANAGEMENT PRACTICES**

### **EXAMINATION GUIDELINES**

**GRADE 12**

**2017**

**These guidelines consist of 13 pages.**

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## 1. INTRODUCTION

The Curriculum and Assessment Policy Statement (CAPS) for Agricultural Management Practices outlines the nature and purpose of the subject Agricultural Management Practices. This guides the philosophy underlying the teaching and assessment of the subject in Grade 12.

The purpose of these Examination Guidelines is to:

- Provide clarity on the depth and scope of the content to be assessed in the Grade 12 National Senior Certificate Examination in Agricultural Management Practices.
- Assist teachers to adequately prepare learners for the examinations.

This document deals with the final Grade 12 external examinations. It does not deal in any depth with the School-Based Assessment (SBA), Practical Assessment Tasks (PATs) or final external practical examinations, as these are clarified in a separate PAT document which is updated annually.

These Examination Guidelines should be read in conjunction with:

- The *National Curriculum Statement (NCS) Curriculum and Assessment Policy Statement (CAPS): Agricultural Management Practices*
- The National Protocol of Assessment: *An addendum to the policy document, the National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF), regarding the National Protocol for Assessment (Grades R–12)*
- The national policy pertaining to the programme and promotion requirements of the National Curriculum Statement, Grades R–12

## 2. ASSESSMENT IN GRADE 12

### 2.1 SCHEME OF EXTERNAL ASSESSMENT

All candidates will write one external paper in grade 12 as prescribed

#### 2.1.1 Format of question paper

Paper	Type of paper	Duration	Total	End of Year	Assessed
1	<b>SECTION A:</b> Terminology, multiple-choice questions – 50 marks <b>SECTION B:</b> Structured questions – 150 marks	3 hours	200	October/ November	Externally

Questions in question paper will assess performance at different cognitive levels with an emphasis on process skills, critical thinking, scientific reasoning and strategies to investigate and solve problems in a variety of scientific, technological, environmental and everyday contexts as outlined earlier.

#### 2.1.2 Assignments in Agricultural Management Practices – Grade 12

The 'Practical Task', as mentioned in the CAPS, creates confusion and is therefore replaced by the term 'assignment'. An assignment is a problem-solving exercise with clear guidelines and a specified length. It is shorter focused, more structured and less open-ended than a project and does not necessarily involve strict adherence to prescribed procedures. An assignment can be a practical task but the practical task does not replace the practical tasks needed for the PAT.

Assignments provide learners with opportunities to develop and practise specific knowledge, skills, values and attitudes.

Possible evidence:

- Case study/Simulations/Scenarios
- Demonstration
- Analysis and interpretations of data (Worksheet)
- Translation activity (worksheet)

<b>Assignments should be designed from the content as set out in each grade:</b>		
<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<ul style="list-style-type: none"> <li>• Crop production and crop management</li> <li>• Soil and water management</li> <li>• Animal production and animal production management</li> </ul>	<ul style="list-style-type: none"> <li>• Crop production and management</li> <li>• Soil and water management</li> <li>• Animal production and animal management</li> <li>• Fertiliser management and application</li> </ul>	<ul style="list-style-type: none"> <li>• Farm planning</li> <li>• Recording</li> <li>• Product harvesting</li> <li>• Marketing</li> <li>• Value adding</li> <li>• Processing</li> <li>• Packing and distribution</li> </ul>

## 2.2 COGNITIVE LEVEL WEIGHTING

The following is a guide for the cognitive level weighting applicable to the question paper. The key verb is used as a guide to judge the appropriate cognitive level of a question. The context of the question will provide more details to measure the level of difficulty of a question to place it at the most appropriate level. The marks per cognitive level need to reflect the overall cognitive balance as a percentage (30% knowledge, 60% comprehension and application and 10% analysis, synthesis and evaluation) for each of the question paper. The cognitive levels will be scaffolded within a question.

### Cognitive levels, context words and key verbs for examination and test papers

#### 2.2.1 The level of difficulty

Each of the cognitive levels A (basic knowledge), B (comprehension and application) and C (analysis, synthesis and evaluation) is mainly determined by the key verbs used in the questions. The level of difficulty for each of these categories must also be judged based on the context of each question. The level of difficulty will fall into three different categories for each of the cognitive levels as difficult, moderate and easy. The weighting of these categories should be equal for each of the cognitive levels.

The following contextual issues need to be considered when assessing a question for its level of difficulty:

- The detail of the knowledge or concepts required in the responses
- The amount/quantity of knowledge or concepts that is needed in the responses
- The complexity of the knowledge or concepts that is required in the responses
- The type and complexity of skills needed to complete the question
- The complexity of the phrasing of a question
- The level of extended thinking needed to respond to a question
- The basic context of a question

Each of the contextual issues above needs to be carefully evaluated in each question to make a judgement on the level of difficulty of a question. This classification of questions needs to be justified by the expected performances and perception of candidates to them. Refer to the exemplar question paper for some examples in this regard.

#### 2.2.2 Handling, applying and evaluating information

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

- Solve problems
- Locate, select, organise and present information from a variety of sources
- Translate information from one form to another
- Manipulate numerical and other data
- Use information to identify patterns, report trends, draw inferences and report conclusions
- Present reasoned explanations for phenomena, patterns and relationships
- Apply knowledge, including principles, to novel situations
- Evaluate information and hypotheses

### 2.2.3 Practical skills and investigations

Candidates should be able to:

- Follow a detailed set of sequence of instructions and use techniques, apparatus and materials safely and effectively
- Make observations and measurements with due regard for precision and accuracy
- Interpret experimental data and make observations
- Identify a problem, design and plan investigations, design or select methods and techniques, suggest possible improvement (for this purpose, planning and designing will include ability to identify variables, state hypothesis, select, set up and use the appropriate apparatus)
- For example, in an examination the apparatus may be set up and learners may be required to label or even criticise the set-up, where this refers to a formal prescribed experiment
- Record observations, measurements, methods and techniques with due regard for precision, accuracy and units

### 2.2.4 Weighting of cognitive levels

The distribution of cognitive levels in Agricultural Management Practices papers is given below.

<b>COGNITIVE LEVEL WEIGHTING %</b>	<b>CONTEXT WORDS</b>	<b>KEY VERBS</b>
<b>A</b> 30%	<b>Knowledge</b>	Give labels, list, name, state or identify functions, recognise; Concepts, processes, mechanisms, etc.
<b>B</b> 30%	<b>Comprehension</b>	Describe or explain concepts, classify, processes, mechanisms; Make direct deductions from data given; Do calculations, etc.
<b>C</b> 30%	<b>Application</b>	Interpret data; explain adaptations or environmental factors influencing effectiveness; draw flow charts or mind maps to illustrate processes or mechanisms; construct tables and graphs to organise and present data; draw diagrams to investigate concepts; communicate findings and apply formulas
<b>D</b> 10%	<b>Analysis, Synthesis and Evaluation</b>	Problem-solving; formulate a hypothesis; design experiments/investigations; analyse; predict; argue and evaluate

**2.2.5 Weighting of prescribed content**

	<b>Content</b>	<b>Marks</b>	<b>Total</b>	<b>Duration</b>
<b>Section A</b>	Equal distribution from content	50	50 marks	3 hours
<b>Section B</b>	Physical and financial planning	50	150 marks	
	Entrepreneurship, recording, marketing, business planning and organised agriculture	50		
	Harvesting, processing, management and agritourism	50		

### 3. ELABORATION OF SUBJECT CONTENT

Subject content as listed in the CAPS was regrouped and altered with some additions to make content clear and will be assessed in the topics below. New additions, as mentioned under suggested content, will be assessed in 2015.

TOPIC	CONTENT	SUGGESTED CONTENT SEQUENCE
Farm planning (physical and economical)	Resources available for enterprise planning	<ul style="list-style-type: none"> <li>• <i>Land:</i> <ul style="list-style-type: none"> <li>○ <i>Soil:</i> the production ability of soil and influences on soil; soil data (collection, interpretation for utilisation and application), <i>Depth:</i> crop specific; discuss the role of soil depth on crop production, drainage and moisture conservation, <i>Texture:</i> characteristics of different texture types, pH: correction of pH; degradation of soil</li> <li>○ Topography and slope: reasons for contours methods used and advantages, disadvantages</li> </ul> </li> <li>• <i>Climate: influence of light, wind, temperature (influence on plant growth) and rain</i></li> <li>• <i>Vegetation/Pastures(natural and cultivated):</i> <ul style="list-style-type: none"> <li>○ Different types – planted pastures; carrying capacity</li> <li>○ Reasons for camps and management</li> <li>○ Principles of laying out camps; degradation of veld</li> <li>○ Advantages: discuss the advantages of camps</li> </ul> </li> <li>• <i>Capital as a resource; sources of capital</i></li> <li>• <i>Labour as a resource and influence on productivity</i></li> </ul>
	Farming systems available and be able to determine the best one for production based on available resources	<ul style="list-style-type: none"> <li>• <i>Choice of production farming system – reasons, differences and examples:</i> <ul style="list-style-type: none"> <li>○ Extensive (crop and animal production system)</li> <li>○ Semi-intensive (crop and animal production system)</li> <li>○ Intensive (crop and animal production system)</li> </ul> </li> <li>○ Precision farming as an intensive production system (crop and animal example): <ul style="list-style-type: none"> <li>▪ Definition, practical application, resources available, agronomic, technical and economic applications, advantages and disadvantages. Precision farming cycle in planning</li> <li>▪ Types of equipment used, advantages and disadvantages of equipment</li> </ul> </li> <li>• <i>Mechanisation and implement planning:</i> <ul style="list-style-type: none"> <li>○ Decision-making steps to acquire implements</li> <li>○ Advantages and disadvantages of equipment and implements used in enterprises</li> </ul> </li> <li>• <i>Occupational Health and Safety Act:</i> <ul style="list-style-type: none"> <li>○ Rules and regulations for safe use, general safety principles</li> <li>○ Pesticides and herbicides: correct use of, pollution prevention</li> </ul> </li> </ul>
	Economic planning process	<ul style="list-style-type: none"> <li>• <i>Capital: sources of capital, different types of capital and definition</i></li> <li>• <i>Budgets: basic elements of budget, steps to draw up a budget</i> <ul style="list-style-type: none"> <li>○ Definition, aim, types and examples of budgets</li> <li>○ Distinguish between whole-farm and enterprise budgets</li> </ul> </li> </ul>



<b>Farm planning (physical and economical)</b>	Labour planning and how production is influenced by the above	<ul style="list-style-type: none"> <li>• <i>Types of labour</i></li> <li>• <i>Labour legislation: influence of labour legislation on labour, labour contracts</i></li> <li>• <i>Functions of labour in a specific enterprise: drawing up a job description</i></li> <li>• <i>Staff management: steps in the management process</i></li> <li>• <i>Labour problems</i></li> <li>• <i>Improvement of production: methods of improvement, influence of diseases on production and farm management</i></li> </ul>
<b>Farm planning economical, entrepreneurship, recording, marketing and business planning</b>	Farm planning (economical)	Cash flow: <ul style="list-style-type: none"> <li>• <i>Definition</i></li> <li>• <i>Drawing up a cash flow budget: use a basic example</i></li> </ul> Income and expenses statement: <ul style="list-style-type: none"> <li>• <i>Definition</i></li> <li>• <i>Drawing up statements:</i> <ul style="list-style-type: none"> <li>○ Use a basic example</li> <li>○ Profit or loss calculations of a specific enterprise</li> </ul> </li> </ul>
	Aims, advantages and types of records	<ul style="list-style-type: none"> <li>• <i>Aim</i></li> <li>• <i>Advantages</i></li> <li>• <i>Types of records: reasons to keep certain records:</i> <ul style="list-style-type: none"> <li>○ Climatologically (how it influences decision-making)</li> <li>○ Financial (profit or loss)</li> <li>○ Labour (contracts, working hours, leave)</li> <li>○ Physical inventory</li> <li>○ Mechanical maintenance and logbook</li> <li>○ Marketing prices and movement in the market</li> <li>○ Complete records</li> </ul> </li> </ul>
	Methods of recording and the importance	The role and aim of the following methods: <ul style="list-style-type: none"> <li>○ Diary, database (computer)</li> <li>• <i>Factors that influence type of record system</i></li> <li>• <i>Practical factors that influence the system</i></li> <li>• <i>Records such as production and harvesting records</i></li> </ul>
	Farm planning (economical) Recording data and use	<ul style="list-style-type: none"> <li>• <i>Invoice: examples of basic knowledge</i></li> <li>• <i>Cheques: examples of basic knowledge</i></li> <li>• <i>Depreciation: basic concept and calculations</i></li> <li>• <i>Deposit books: concept and application</i></li> <li>• <i>Petty cash: concept and application</i></li> </ul>
		Trial balance: <ul style="list-style-type: none"> <li>• <i>Definition</i></li> <li>• <i>Drawing up a Trial Balance: use a basic practical example as used in management</i></li> </ul>

<b>Farm planning economical, entrepreneurship, recording, marketing and business planning</b>	Entrepreneurship skills	<p>Definition:</p> <ul style="list-style-type: none"> <li>• <i>Qualities of an entrepreneur</i></li> <li>• <i>Managing skills</i></li> </ul> <p>Business creation in agriculture (business opportunities):</p> <ul style="list-style-type: none"> <li>• <i>Different types of business with reference to:</i> <ul style="list-style-type: none"> <li>○ Manufacturing</li> <li>○ Primary, e.g. agriculture</li> <li>○ Secondary, e.g. manufacturing</li> <li>○ Tertiary, e.g. services</li> </ul> </li> <li>• <i>Business survival strategies with reference to:</i> <ul style="list-style-type: none"> <li>○ Diversification, specialisation</li> <li>○ Producing a unique product</li> <li>○ Value-adding marketing, e.g. milk to cheese</li> </ul> </li> <li>• <i>The occupation of niche markets</i></li> </ul>
	Development of a basic business plan	<p>Description and explanation of a business plan:</p> <ul style="list-style-type: none"> <li>• <i>A simple business plan with reference to the following aspects:</i> <ul style="list-style-type: none"> <li>○ General overview of the business</li> <li>○ Planning, including SWOT analysis</li> <li>○ Vision and mission</li> <li>○ Financial details</li> <li>○ Marketing plan</li> </ul> </li> </ul>
	Marketing and control of agricultural products	<p>Marketing systems: free marketing/cooperative marketing/marketing agents:</p> <ul style="list-style-type: none"> <li>• <i>Marketing Acts: Marketing of Agricultural Products Act</i></li> <li>• <i>Importance of marketing: discuss the selling of products</i></li> <li>• <i>Marketing functions: planning/transport/processing/standardisation, grading and storing</i></li> <li>• <i>Advertising: aim of advertising in marketing; advertising methods</i></li> </ul>
	Price setting in agricultural produce	<p>Methods of setting prices:</p> <ul style="list-style-type: none"> <li>• <i>The marketing chain and its costs (include calculations) – farmer to consumer; value adding</i></li> <li>• <i>Market research – reasons for market research: where, why, what and how?</i></li> <li>• <i>Customer and competitor information (examples to illustrate the equilibrium position in the market); direct and indirect competition</i></li> <li>• <i>The effect of supply and demand on price – demand and supply curve</i></li> <li>• <i>Break-even point involving cost and profit</i></li> </ul>

<b>Organised agriculture</b>	Role of producer/ product organisations in agriculture	Type of organisation: <ul style="list-style-type: none"> <li>• <i>Local, national, multinational</i></li> <li>• <i>Advantages and disadvantages of organisation</i></li> </ul> The role of the producer/product organisation in the marketing of products: <ul style="list-style-type: none"> <li>• <i>Marketing, advertising</i></li> <li>• <i>Quality control and standardisation</i></li> </ul>
<b>Harvesting, processing and management</b>	Product harvesting and quality control of agricultural produce	Regulations and legal aspects (Acts): <ul style="list-style-type: none"> <li>• <i>Regarding products: grading, requirements for the delivery of certain products</i></li> <li>• <i>Handling products: basic principles; collection and transport</i></li> <li>• <i>Storing products: methods of storing; advantages of storing</i></li> <li>• <i>Sorting and grading products</i></li> </ul>
	Value adding and labelling of agricultural produce	Labelling and value-adding Acts: interpretation and application of the Act: <ul style="list-style-type: none"> <li>• <i>Registration Acts: interpretation and application of the Act</i></li> <li>• <i>Value-adding methods</i></li> <li>• <i>Types of products</i></li> <li>• <i>Advantages: higher income, job creation and longer shelf life</i></li> </ul>
	Processing of agricultural products	<ul style="list-style-type: none"> <li>• <i>Principles of processing/preservation techniques:</i> <ul style="list-style-type: none"> <li>○ Heating</li> <li>○ Destruction of micro-organisms</li> <li>○ Freezing</li> </ul> </li> <li>• <i>Advantages/Reasons: longer shelf life, food security and better quality products</i></li> <li>• <i>Factors indicating the viability of value adding: equipment, facilities and demand</i></li> </ul>
	Packing and distribution of agricultural products/produce	Regulations and Acts: Labelling and Marketing Act: <ul style="list-style-type: none"> <li>• <i>Types of packing methods and materials: packing facilities, packaging store, wrapping</i></li> <li>• <i>Distribution channels</i></li> <li>• <i>Transport requirements: rules and regulations regarding transporting animals</i></li> </ul>
	Agritourism	Definition and description: <ul style="list-style-type: none"> <li>• <i>Types:</i> <ul style="list-style-type: none"> <li>○ Product routes</li> <li>○ Guest farms</li> </ul> </li> <li>• <i>Advantages and disadvantages</i></li> <li>• <i>Requirements:</i> <ul style="list-style-type: none"> <li>○ Infrastructure</li> <li>○ Marketing</li> </ul> </li> <li>• <i>The farmer's role in agritourism – entrepreneur</i></li> </ul>

<b>Harvesting, processing and management</b>	Management aspects	
	Planning:	<ul style="list-style-type: none"> <li>• <i>Steps in the decision-making process</i></li> <li>• <i>Reasons for planning</i></li> </ul>
	Organising:	<ul style="list-style-type: none"> <li>• <i>Organising an enterprise</i></li> <li>• <i>Use of labour and other resources</i></li> <li>• <i>Plan own enterprise/farm organogram</i></li> <li>• <i>Advantages of good planning – profit and productivity</i></li> </ul>
	Motivation/Leadership:	<ul style="list-style-type: none"> <li>• <i>Human resources (training)</i></li> <li>• <i>Motivation (incentives)</i></li> <li>• <i>Delegating (creating responsibility)</i></li> <li>• <i>Communication (address issues)</i></li> </ul>
	Control:	<ul style="list-style-type: none"> <li>• <i>Development of standards – steps in the development of standards</i></li> <li>• <i>Corrective measures – changes to standards and methods</i></li> <li>• <i>Advantages of good control – economically and productivity</i></li> </ul>
	Coordination and evaluation:	<ul style="list-style-type: none"> <li>• <i>Coordination between steps in the process</i></li> <li>• <i>Advantages of coordination</i></li> <li>• <i>Coordination of labour, tasks and machinery</i></li> </ul>
	<b>Farm valuation importance</b>	<p>Inter-reliance of different enterprises:</p> <ul style="list-style-type: none"> <li>• <i>Profitability of enterprises – basic profit and loss calculations</i></li> <li>• <i>Viability of enterprises – basic calculations</i></li> <li>• <i>Suitability of the farm in terms of the business plan – choices regarding the enterprise</i></li> </ul>

#### **4. CONCLUSION**

This Examination Guideline document is meant to articulate the assessment aspirations espoused in the CAPS document. It is therefore not a substitute for the CAPS document which teachers should teach to.

Qualitative curriculum coverage as enunciated in the CAPS cannot be over-emphasised.