education

Department:
Education
REPUBLIC OF SOUTH AFRICA

EXAMINATION GUIDELINES

AGRICULTURAL TECHNOLOGY

GRADE 12

2009

This guideline consists of 5 pages.

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PURPOSE OF THE GUIDELINES

The purpose of this document is to assist teachers and learners in their preparation for the National Senior Certificate in Agricultural Technology (NSC).

These guidelines should be used in conjunction with the following national documents:

1. The National Curriculum Statement (NCS)
2. The Learning Program Guidelines (LPG)
3. The Subject Assessment Guidelines (SAG)

STRUCTURE OF THE AGRICULTURAL TECHNOLOGY PAPER

The Agricultural Technology examination consists of one three-hour paper of 200 marks. All questions are COMPULSORY, covering all the Learning Outcomes and Assessment Standards.

SECTION A	**Question 1**:Short Questions (Covering all **FOUR** Learning Outcomes and Assessment Standards)	40 marks
SECTION B	More descriptive and application type of questions (Covering all **FOUR** Learning Outcomes and Assessment Standards)	
	QUESTION 2: MATERIALS AND STRUCTURES	35 Marks
	QUESTION 3: ENERGY	20 Marks
	QUESTION 4: SKILLS AND CONSTRUCTION PROCESSES	35 Marks
	QUESTION 5: TOOLS, IMPLEMENTS AND EQUIPMENT	40 Marks
	QUESTION 6: WATER MANAGEMENT	30 Marks

COGNITIVE LEVELS

The paper caters for a range of cognitive levels. The following guide is used to compile questions:

Categories of complexity	Description of categories	Weighting	MARKS
1. Basic Cognitive levels	Assessing basic knowledge	± 20 %	40
2. Comprehension	More than recall of facts including understanding and insight into routine and familiar situations	± 40 %	80
3. Application	Application of components and systems to new, novel or familiar situations	± 25 %	50
4. Higher intellectual Abilities	Analysis of data, Synthesis of data, Evaluation of data against given criteria.	± 15 %	30

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When setting the paper, an analysis grid is developed to ensure that the paper is weighted correctly according to the National Subject Assessment Guideline document (SAG).

Learning Outcome		Weighting	% Of paper	Total Marks
LO 1	**Technology Society and the Environment**	**8%**	**9%**	**18**
LO 2	**Technological Process**	**7%**	**5%**	**10**
LO 3	**Knowledge and Understanding (weighting on each Assessment)**	**80%**	**86%**	**172**
LO 4	**Application of Knowledge**	**5%**		

PREPARATION FOR THE PAPER

It is imperative that the groundwork for this paper is set from grade 10.
The progression of the Learning Outcomes in each grade (grade 10 & 11) may be assessed in Grade 12.

On the final day of the paper:

1. Learners should be in the examination room at least 20 minutes before the starting time to get settled and make maximum use of the reading time. Remind learners to have a **calculator** and all the necessary writing tools**.**

2. It is important that learners are taught to manage their time well so they are able to finish the paper.

3. Learners must be encouraged to read through the question paper carefully before they start writing.

4. When learners start writing, they should jot down any thoughts or ideas that that come to mind on certain questions. The jotting down of ideas can be useful memory triggers when they actually come to answer the questions.

5. Read all the headings and instructions carefully. Learners should be prepared to handle resources they have not seen before as application of the content is one of the skills required in Agricultural Technology. The examiners do this deliberately because they want to establish if the learners are able to apply their knowledge to any type of situation.

6. Study each resource, whether it is a cartoon, photograph, map, table, graph or text and question: “What is this about? What is it telling me? What part of my knowledge does it relate to?”

7. They should not write too much on sections they know well and leave out other questions. They should make use of the mark allocation as a guide.

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8. A neat, legible handwriting is essential. Many learners have disadvantaged themselves because of poor handwriting when sub-examiners were unable to decipher what was written.

9. Learners must be encouraged to leave time at the end of the exam to read over their answers. Correcting poor expression, spelling or checking their calculations can make a huge difference to their final marks.

WHAT TO EXPECT IN THE PAPER

There will be questions in which they will be required to express their own opinions, except Section A.
These questions may start with **"Give your views on …", "Explain why …" , "Discuss how …", "Comment on...", "Suggest...", "Do you agree …" etc.** These questions may have more than one correct answer, so learners should be taught to attempt all questions. The paper will not only assess (test) the learners' knowledge of the subject, it will also test their ability to understand, interpret, apply and reason. They will often be asked to explain/motivate/substantiate their answers.

QUESTION 2: MATERIALS AND STRUCTURES

12.3.2 Integration: LO 1,2,3,4 C O: 1-7 ***D O: 1,2,4,5***	**Materials and structures**	Metals Adhesives ▪ Materials used in ventilation, cooling, electrification and waste management ▪ Materials for special purposes ▪ Maintenance of structures for animal production

QUESTION 3: ENERGY

12.3.3 Integration: LO 1,2,3,4 C O: 1-7 **D O: 1,2,4,5**	**Energy**	Electrical fences Alternative sources of electricity

QUESTION 4: SKILLS AND CONSTRUCTION PROCESSES

12.3.4: Integration: LO 1,2,3,4 C O: 1-7 **D O: 1,2,4,5**	**Construction Process**	Interpretation of diagrams Drawings and sketches Handling of hydraulic and pneumatic tools Skills Gas welding CO_2 Arc welding Advanced Carpentry

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QUESTION 5: TOOLS, IMPLEMENTS AND EQUIPMENT

12.3.5 Integration: LO 1,2,3,4 C O: 1-7 D O: 1,2,4,5	**Tools and Equipment**	Harvesting equipment Mechanized equipment Fault finding and solving of problems on engines and systems

QUESTION 6: WATER MANAGEMENT

12.3.6 Integration: LO 1,2,3,4 C O: 1-7 **D O: 1,2,4,5**	**Irrigation**	Problem solving, scheduling and maintenance of irrigation systems Different types of irrigation systems.

THE THREE REMAINING AS`s MENTIONED IN THE TABLE BELOW ARE INTEGRATED INTO THE SIX QUESTIONS ABOVE.

GRADE 12 LO-AS and integration	**GRADE 12 FOCUS**	**GRADE 12 TOPIC**
12.3.7 Integration: LO 1,2,3,4 C O : 1-7 D O :1-3	**Safety**	▪ OHS Act ▪ Fire fighting ▪ First Aid ▪ Medical emergencies HIV / Aids
12.3.8 Integration: LO 1,2,3,4 C O: 1-7 D O: 1,2,4,5	**Drawings**	Different drawings used in Agriculture
12.3.9 Integration: LO 1,2,3,4 C O: 1-7 **D O: 1,2,4,5**	**Measurements and Calculations**	Calculation costs ▪ Calibration

CONCLUSION

It is very important that learners realise that they cannot start preparing for the Agricultural Technology examination in the final term. In order to perform well, they have to organise themselves by drawing up individual revision timetables. This will give them sufficient time to prepare for the National Senior Certificate – Agricultural Technology.

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