



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

FEBRUARY/MARCH 2014

MARKS: 200

TIME: 2½ hours

This question paper consists of 13 pages and a 1-page answer sheet.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions. Answer ALL the questions.
2. ALL the questions must be answered in the ANSWER BOOK.
3. QUESTION 3.2.1 must be answered on the attached ANSWER SHEET. Place the answer sheet inside the front cover of the ANSWER BOOK.
4. Read the questions carefully and answer only what is asked.
5. Number the answers correctly according to the numbering system used in this question paper.
6. You may use a non-programmable calculator.
7. Round off ALL calculations to TWO decimal places, unless stated otherwise.
8. Write neatly and legibly.

SECTION A**QUESTION 1**

- 1.1 Various options are given as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.
- 1.1.1 The amount of moisture that soil can retain after rainfall or irrigation is called ...
- A aeration.
 - B drainage.
 - C temperature.
 - D water-holding capacity.
- 1.1.2 The factor in farm planning that has the biggest influence on the size of the camps for animals in a specific area, is the ...
- A type of soil.
 - B daily average temperature.
 - C type of animals.
 - D soil temperature.
- 1.1.3 When a farmer calibrates a syringe to inject an animal, it is important that the farmer first ...
- A determine the animal's weight.
 - B read the leaflet of the specific medicine.
 - C determine the average age of the animal.
 - D use the correct needle.
- 1.1.4 ONE of the best methods to prevent soil erosion is to ...
- A cover the soil with vegetation.
 - B plough the soil at the end of the winter season.
 - C use crop rotation.
 - D increase the number of cattle in a camp.
- 1.1.5 To determine the liquidity of a farm a farmer calculates the difference between the ...
- A income and expenditure.
 - B assets and liabilities.
 - C loan and monthly payments.
 - D profit and loss.

- 1.1.6 The first part of a farm business plan for a new production unit must be the ...
- A financial aspects.
 - B production plan.
 - C basic information of the farming enterprise.
 - D extension possibilities of the unit.
- 1.1.7 The reason why a health agent inspects carcasses at an abattoir is to determine ...
- A whether the carcasses are free of any pests or diseases.
 - B the grade of the carcasses.
 - C the weight loss of the carcasses during ripening.
 - D the fat content of the carcasses.
- 1.1.8 If the price of an agricultural product in a free marketing system is very low, ...
- A producers will supply more products to the market.
 - B the demand by the consumer will increase.
 - C the demand by the consumer will decrease.
 - D the market will decrease the exhibition space.
- 1.1.9 The Agricultural Product Standards Act, 1990 (Act 119 of 1990) controls the ...
- A substances that may be added to food.
 - B premises where processing will take place.
 - C grading of processed products.
 - D stamp of approval of the SABS on food products.
- 1.1.10 The most important reason why a farmer processes an agricultural product is to ...
- A increase the shelf life of the product.
 - B change the appearance of the product.
 - C make the product more acceptable for the consumer.
 - D increase the profit margin.
- (10 x 2) (20)

- 1.2 Choose a description from COLUMN B that matches a term in COLUMN A. Write only the letter (A–L) next to the question number (1.2.1–1.2.10) in the ANSWER BOOK, for example 1.2.11 M. Each description in COLUMN B may be used ONCE only.

COLUMN A		COLUMN B	
1.2.1	Rotational grazing	A	these slopes are warmer in summer and very cold in winter
1.2.2	Slope	B	money that contributes to the liquidity of a farm
1.2.3	Southern	C	sells a product of a farmer on a foreign market
1.2.4	Organic farming	D	may cause soil erosion by increasing the speed of water flow
1.2.5	Liability	E	the description on packaging that contains all the basic information on an agricultural product
1.2.6	Computer	F	farming enterprise that uses compost and indigenous knowledge to control pests
1.2.7	Market agent	G	these slopes are warmer in winter and summer
1.2.8	Harvesting	H	the point in the market where the supply of a product is the same as the demand for that product
1.2.9	Label	I	electronic equipment that is used to keep records of a farming enterprise
1.2.10	Equilibrium	J	the use of different camps for the same group of animals during the year
		K	the process whereby the farmer reaps what was sowed
		L	accounts that must be paid by the farmer at the end of the month

(10 x 2) (20)

- 1.3 The following statements are INCORRECT. Change the underlined word(s) to make each statement CORRECT. Write only the correct word(s) next to the question number (1.3.1–1.3.10) in the ANSWER BOOK, for example 1.3.11 Recording.
- 1.3.1 Soil moisture is the ability of water to flow through soil.
- 1.3.2 Light is a climatic factor that is measured in knots and will cool animals down on hot summer days.
- 1.3.3 Evaluation is the management principle that involves the setting of different tasks that labourers must do the next day.
- 1.3.4 Capital is the production factor that a farmer has to consider by determining number and duties before starting a new enterprise.
- 1.3.5 Free marketing is the marketing system where the government fixes prices and controls the marketing process.
- 1.3.6 Organising is the management task where a farmer has to determine whether the production unit must expand on the farm.
- 1.3.7 A farmer has to complete an invoice when money must be deposited into the cooperation's bank account.
- 1.3.8 A farmer sells animals to the person with the highest bid (offer) for the animals at a fresh-produce market.
- 1.3.9 Blanching is the process used to preserve fruit by placing it in syrup.
- 1.3.10 The substances that make up the content of a processed product are indicated by the nutritional value on the label. (10 x 1) (10)

TOTAL SECTION A: 50

SECTION B**QUESTION 2: ANIMAL AND CROP PRODUCTION**

Start this question on a NEW page.

- 2.1 Farm planning is an organised and systematic schedule where all natural resources are integrated with a well-balanced farming programme.
- 2.1.1 Name FOUR basic data items that are required to develop a farm plan. (4)
- 2.1.2 The collection of soil data is important in farm planning. List FOUR types of soil data that must be collected. (4)
- 2.1.3 Discuss FOUR functions of soil in the production process. (4)
- 2.1.4 State FOUR forms in which water, as a constituent of soil, occurs. (4)
- 2.2 Capital is needed for short-, medium- and long-term purposes.
- 2.2.1 State THREE factors that can influence the amount of capital needed for a farming enterprise. (3)
- 2.2.2 The repayment period of a loan is determined by a few factors. Name TWO of these factors. (2)
- 2.3 Read the case study below carefully and answer the questions that follow.
- During certain times of the year farmers need a large number of labourers, while their workers are not productive at other times. This is mostly a seasonal problem. For example, workers are very busy during lambing, harvesting and weeding times. Farmers have to put measures in place to overcome this higher work load.
- 2.3.1 Describe TWO problems experienced in the case study. (2)
- 2.3.2 Identify THREE periods in the case study when workers will be busy. (3)
- 2.3.3 Give THREE possible solutions to the problems mentioned in QUESTION 2.3.1. (3)

2.4 Farm management is one of the most important production factors in agribusiness.

2.4.1 State FIVE general functions of a farm manager. (5)

2.4.2 Outline FOUR steps in decision making. (4)

2.4.3 Briefly explain the accumulative nature of decision making. (1)

2.5 Farmer A and Farmer B are livestock farmers on 10-hectare plots in the same region.

	FARMER A	FARMER B
Number of animals	150	500
Capital invested	R10 000,00	R100 000,00
Product produced per year	130	450
Aim of farming	Commercial farming	Commercial farming
Feeding of animals	Grazing on pastures	Mostly feed mixture

2.5.1 Name the type of farming system used by Farmer A based on the intensity of the farming unit. (1)

2.5.2 Name the type of farming system used by Farmer B based on the intensity of the farming unit. (1)

2.5.3 Motivate your answer to QUESTION 2.5.2. (4)

2.5.4 Farmer B has many animals on a small piece of land. What farming method does the farmer use? (1)

2.6 Compile a list of the visible aspects of a farm that a farmer has to evaluate to determine efficiency. (4)

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QUESTION 3: RECORDING, FINANCIAL STATEMENTS AND ENTREPRENEURSHIP

Start this question on a NEW page.

3.1 Without farm records it will be impossible for a farmer to determine the success of the farm and consequently the profit of the business.

3.1.1 Name THREE prerequisites for good farm records. (3)

3.1.2 Every farmer should develop an inventory as his/her first record. Explain THREE steps to be followed when an inventory is developed. (3)

3.2 Study the data of the salaries of farm workers on a registered farm in South Africa below and answer the questions that follow.

YEAR	SALARY SCALE (R)
2005	800,00
2006	900,00
2007	1 000,00
2008	1 200,00
2009	1 500,00
2010	1 900,00

3.2.1 Plot a bar graph using the information in the table above. Use the graph paper on the attached ANSWER SHEET. (4)

3.2.2 Suggest THREE factors that could have led to the dramatic increase in the workers' salaries from 2008 to 2010. (3)

3.2.3 Calculate, as a percentage, the increase in the workers' salaries from 2009 to 2010. (3)

3.3 Monetary payment of farm workers can be done in FOUR different ways. Name these ways. (4)

- 3.4 Study the data captured by two livestock farmers who are involved in the same farming industry.

FARMER A

EXPENDITURE	RAND	INCOME	RAND
Cost of livestock	13 500,00	Livestock sales	55 000,00
Feed	9 500,00	Sales of waste products	12 100,00
Electricity, water and wages	6 000,00		
Veterinary care	12 000,00		
Maintenance	10 000,00		
Total	51 000,00		67 100,00

FARMER B

EXPENDITURE	RAND	INCOME	RAND
Cost of livestock	13 500,00	Livestock sales	55 000,00
Feed	10 500,00	Sales of waste products	6 700,00
Electricity, water and wages	6 000,00		
Veterinary care	12 000,00		
Maintenance	8 000,00		
Total	50 000,00		61 700,00

- 3.4.1 Calculate FARMER A's net profit. (2)
- 3.4.2 Calculate FARMER B's net profit. (2)
- 3.4.3 Identify the farmer who is more successful and give TWO reasons to support your answer. (3)
- 3.5 A Cash Flow Budget is an estimate of all cash income and expenditure as it will occur. It can be prepared weekly, monthly or quarterly.
- 3.5.1 Describe FOUR main features of a Cash Flow Budget. (4)
- 3.5.2 Give FOUR reasons for compiling a Cash Flow Budget. (4)
- 3.6 A group of people want to start a livestock project but they are required to submit a business plan to a financial institution. Briefly explain to the group, with reference to SIX main points, the importance of a business plan when starting a business enterprise. (6)

- 3.7 Distinguish between the following terms in agriculture:
- 3.7.1 Assets (2)
 - 3.7.2 Liabilities (2)
 - 3.7.3 Product income (2)
- 3.8 The debit note is a source document that will be issued as proof that an item has been returned to the creditor. Give THREE reasons for returning a purchased item to a creditor. (3)
- [50]**

QUESTION 4: HARVESTING, VALUE-ADDING, MARKETING, AGRITOURISM AND INDUSTRY

Start this question on a **NEW** page.

- 4.1 Explain why harvesting with a combine harvester is more time effective than manual harvesting. (2)
- 4.2 Research is an integral part of any agricultural enterprise. The picture below illustrates an important process that must be followed before any product is sold.



- 4.2.1 Identify this management process. (1)
- 4.2.2 Indicate FOUR important physical functions of marketing. (4)
- 4.3 During the process of grading there are visible criteria that a grader has to look for to determine the specific grade of a harvested crop. Name FOUR of these visible criteria. (4)
- 4.4 Packaging an agricultural product plays an important role in the success of the marketing process.
- 4.4.1 Describe FOUR important aspects to consider when food packaging material is designed. (4)
- 4.4.2 Name THREE types of packaging material for products that the agricultural sector uses to sell products to the general public. (3)

- 4.5 A distinctive feature of cooperative marketing is the pooling system of farm produce.
- 4.5.1 Briefly describe how the pooling system of a cooperative is applied. (3)
- 4.5.2 Outline FOUR advantages of cooperative marketing. (4)
- 4.6 Farm products are processed in different ways to increase their lifespan. Processing can kill or eliminate micro-organisms to stop or inhibit their growth.
- 4.6.1 State THREE food preservation methods that a farmer can use to kill or eliminate micro-organisms. (3)
- 4.6.2 Name FOUR food preservation methods a farmer can use to stop or inhibit the growth of micro-organisms. (4)
- 4.7

Tourists visit South African game farms throughout the year. The types of game most suited to the South African climate include giraffe, impala, kudu, eland, duiker, rhino, zebra, gemsbok, wildebeest, blesbok, elephant, hippopotamus, lion, leopard and buffalo. The main aims of game farming are tourism, hunting, conservation and the breeding of rare or endangered species.

- 4.7.1 Name the section of agriculture that the paragraph above refers to. (1)
- 4.7.2 State FOUR aims of game farming. (4)
- 4.7.3 Identify the animals that are known as the Big Five in South Africa. (5)
- 4.8 Farm-gate marketing is one of the most common marketing channels used by farmers, especially small-scale farmers and farmers in distant rural areas.
- 4.8.1 State THREE advantages of farm-gate marketing. (3)
- 4.8.2 State TWO disadvantages of farm-gate marketing. (2)
- 4.9 Describe THREE factors that influence the functionality of decision-making when selling your produce. (3)

TOTAL SECTION B: 150
GRAND TOTAL: 200

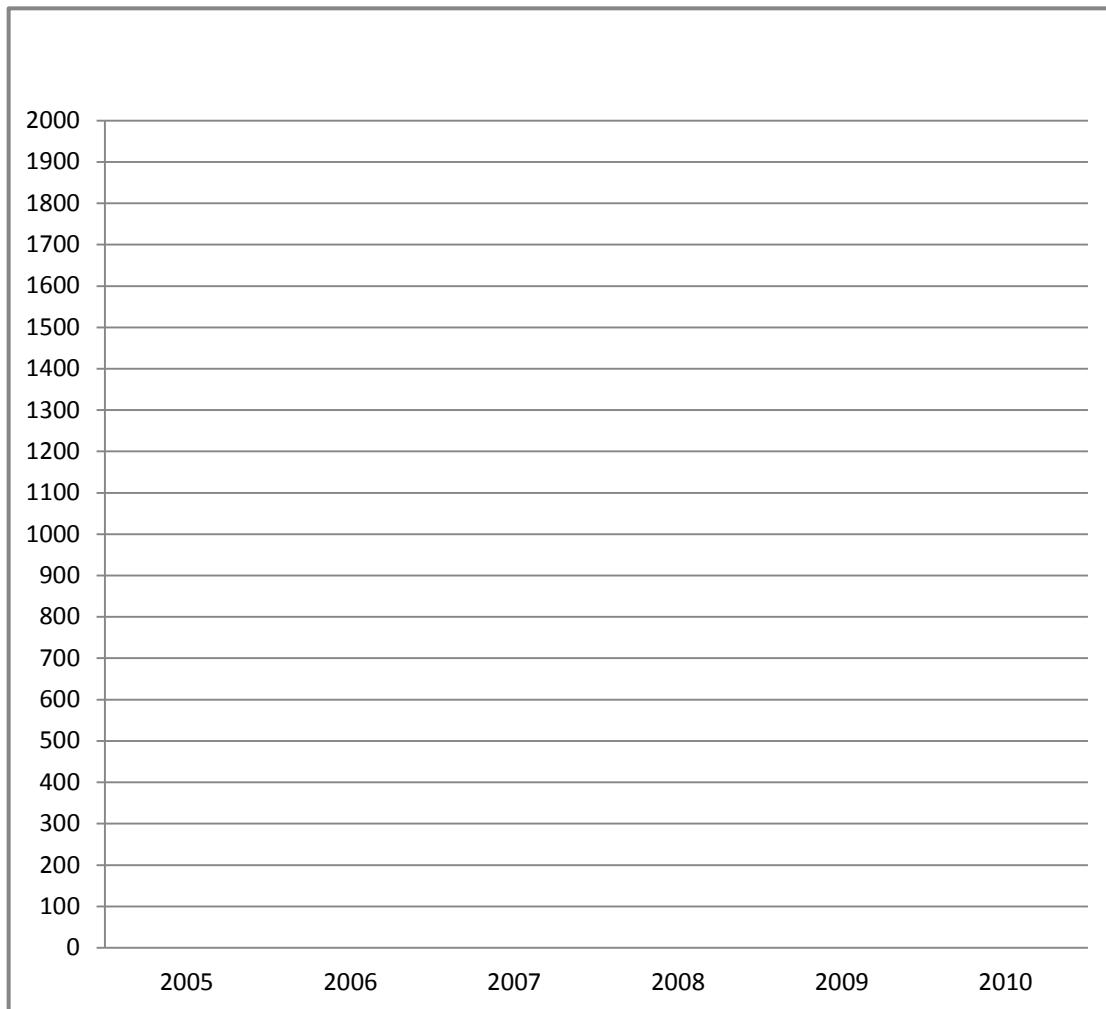
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QUESTION 3.2.1



(4)