



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

AGRICULTURAL MANAGEMENT PRACTICES

NOVEMBER 2022

MARKS: 200

TIME: 3 hours

This question paper consists of 16 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO sections.
2. Answer ALL the questions in the ANSWER BOOK.
3. Read the questions carefully and answer ONLY what has been asked.
4. Number the answers correctly according to the numbering system used in this question paper.
5. You may use a non-programmable calculator.
6. Start EACH question on a NEW page.
7. Write neatly and legibly.

SECTION A**QUESTION 1**

1.1 Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question numbers (1.1.1 to 1.1.10) in the ANSWER BOOK, e.g. 1.1.11 D.

1.1.1 Which ONE of the following agricultural resources is an example of a natural resource?

- A Labour
- B Farm buildings
- C Money
- D Soil

1.1.2 Efficient mechanisation in farming is the solution to the ...

- A increasing lack of farm labour.
- B cost of having labourers trained.
- C production of different products.
- D lack of schooling amongst labourers.

1.1.3 The type of labourer that does a repetitive task at the same time each year and works only for a specific period of time on a farm:

- A Permanent labourer
- B Seasonal labourer
- C Occasional labourer
- D Full-time labourer

1.1.4 This budget provides for the upkeep of all infrastructure, implements and equipment:

- A Break-even budget
- B Partial budget
- C Maintenance budget
- D Whole-farm budget

1.1.5 The basic accounting equation is:

L – liabilities; A – assets; E – owners' equity

- A $L = E + A$
- B $L = A + E$
- C $A = E + L$
- D $E = A + L$

- 1.1.6 A primary conversion of food:
- A Preparing butter from cream
 - B Extracting oil from oilseed
 - C Baking bread with wheat flower
 - D Making cornflakes from maize flour
- 1.1.7 The liquidity of a farm is determined by compiling a/an ...
- A cash-flow statement.
 - B income statement.
 - C budget.
 - D balance sheet.
- 1.1.8 A farm implement depreciates at 5,2% per year. The value of the implement after ONE year if the current value is R8 872,00:
- A R461,34
 - B R9 333,34
 - C R8 872,00
 - D R8 410,66
- 1.1.9 The document issued to a debtor to confirm that the company has refunded the returned goods:
- A Credit note
 - B Till slip
 - C Petty cash voucher
 - D Cash slip
- 1.10 The best method of transporting highly perishable products, such as flowers, over long distances:
- A Road
 - B Rail
 - C Air
 - D Sea
- (10 x 2) (20)

- 1.2 Choose a description from COLUMN B that matches a term/phrase in COLUMN A. Write only the letter (A–L) next to the question numbers (1.2.1 to 1.2.10) in the ANSWER BOOK, e.g. 1.2.11 M. Use each description in COLUMN B only ONCE.

COLUMN A		COLUMN B	
1.2.1	Soil suitability	A	original document that contains the details of a business transaction
1.2.2	Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972)	B	a record of separate entries, arranged by date, reporting on what has happened during the course of a day or another period
1.2.3	Diary	C	contains the regulations which control product labelling
1.2.4	Profit	D	used to predict the amount of money to be spent on drilling a borehole on a farm
1.2.5	Motivation	E	the inner drive a person possesses
1.2.6	Grading	F	documents showing the quantity of products produced in a season
1.2.7	Production records	G	the standard set for the uniformity of a group of products
1.2.8	Source documents	H	evaluates the soil qualities against the specific usage requirements
1.2.9	Product organisations	I	indicates the hectares needed for animal production
1.2.10	Capital budget	J	when income exceeds expenses
		K	assists both the farmer and the consumer in specific areas of knowledge of a product
		L	money used for the increase of salaries of employees

(10 x 2)

(20)

- 1.3 Give the CORRECT agricultural term for EACH of the following descriptions. Write only the term next to the question numbers (1.3.1 to 1.3.5) in the ANSWER BOOK, e.g. 1.3.6 Recording.
- 1.3.1 Value-adding of an agricultural product whereby the product is transformed into a more user-friendly product for the consumer
- 1.3.2 A strategy used by a farmer to provide financial protection against unforeseen occurrences such as fire, hail storms, floods and other risks
- 1.3.3 The management principle that a farmer uses to ensure that the amount of equipment handed out is the same as the amount of equipment received back at the end of the week
- 1.3.4 The production factor that represents equipment, fences, seeds, fertilisers and chemicals used in growing crops
- 1.3.5 The marketing channel that is used when consumers travel to a farm and buy products on the farm (5 x 1) (5)
- 1.4 Change the UNDERLINED WORD(S) to make the statements CORRECT. Write the answer next to the question numbers (1.4.1 to 1.4.5) in the ANSWER BOOK, e.g. 1.4.6 Fixed capital.
- 1.4.1 Documents on a farm are important and necessary to make informed management decisions.
- 1.4.2 Marketing refers to the physical and human endeavours performed with the expectation of remuneration.
- 1.4.3 Harrows are used to place seeds at predetermined distances into the soil on a large scale.
- 1.4.4 Livestock records are drawn up from all transactions within the farming enterprise.
- 1.4.5 Competition is the part of the marketing plan which describes the kind of customers one intends to attract. (5 x 1) (5)
- TOTAL SECTION A: 50**

SECTION B

QUESTION 2: PHYSICAL FARM PLANNING

Start this question on a NEW page.

2.1 Indicate the effects of Covid-19 on the productivity of farm workers. (3)

2.2

A farmer wants to expand his/her existing production enterprise by adding a processing plant. The farmer will start this as a small business and if it is successful, he/she would like to grow this project into a large business.

2.2.1 Suggest what the farmer can do to acquire practical experience that would give the project a better chance of succeeding. (1)

2.2.2 Name TWO sources of finance a farmer can consider to start a project and grow it into a large business. Also give ONE disadvantage of EACH of the sources.

Copy and complete the table below in the ANSWER BOOK.

SOURCE OF FINANCE	DISADVANTAGE

(4)

2.2.3 State THREE advantages of combining the marketing of a value-added product with agritourism. (3)

2.3 Name and describe THREE elements that can be found on a soil map. (6)

2.4 Recommend the correct soil erosion preventative measures from the list below for the following situations. Each measure can be used only ONCE.

zero cultivation; terraces; flood dams; windbreakers; contour ridges; cover crops; stable outlets
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2.4.1 Slow down the run-off of water down a moderate slope (1)

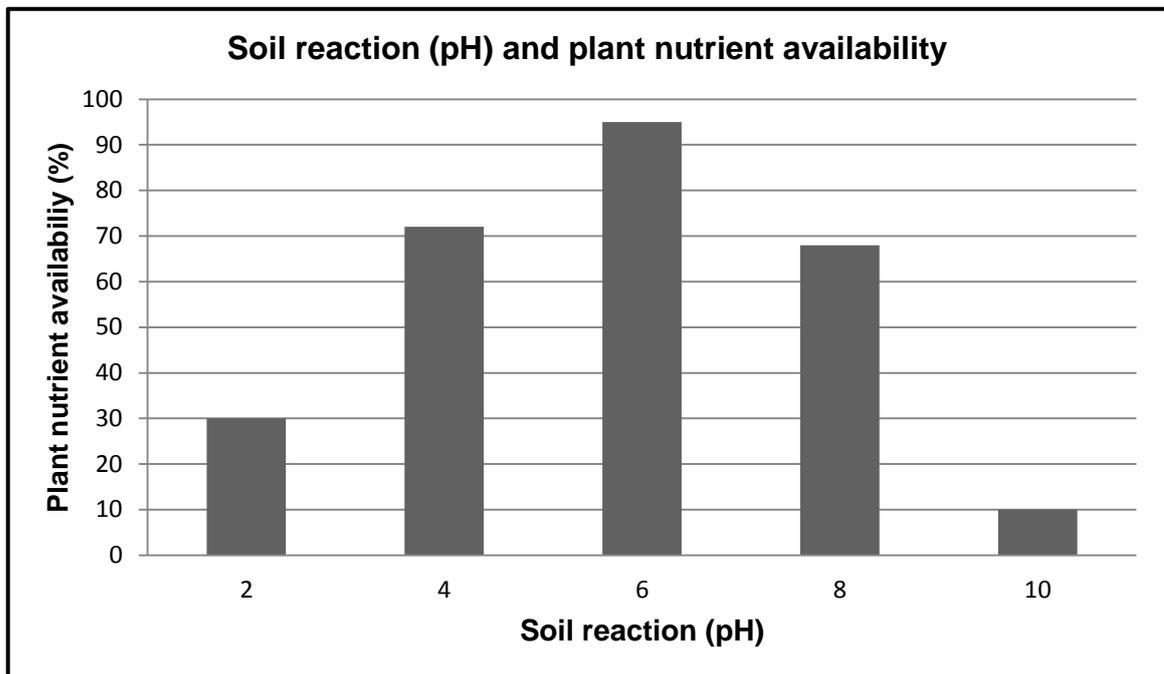
2.4.2 Decrease wind speed (1)

2.4.3 Bind the soil on a slope (1)

2.4.4 Increase water infiltration by utilising the organic material of the previous crop (1)

2.4.5 Prevent the rapid run-off of water down a steep slope (1)

2.5 The graph below shows soil reaction (pH) and plant nutrient availability.



- 2.5.1 State the soil condition as indicated by pH 10. (1)
- 2.5.2 Identify the pH value in the graph above at which most nutrients are available to the plants. (1)
- 2.5.3 Explain the effect of a low pH and a high pH on the availability of plant nutrients in the soil. (2)
- 2.5.4 Name the substance that must be added to soil to correct a high pH. (1)
- 2.5.5 Name the substance that must be added to soil to correct a low pH. (1)

2.6 Calculate the daily feed intake of a lactating animal of 650 kg. Use the formula below and round off the answer to the nearest whole number (kg).

$$\text{Daily feed intake} = \text{animal mass} \times 2,3\% \quad (2)$$

2.7 A farmer uses secondary cultivation implements to prepare a very fine and uncovered seed bed for crop production.

Predict the consequences of such an action on the production ability of the soil. Give TWO reasons for your prediction. (3)

2.8 Copy and complete the table below in the ANSWER BOOK to distinguish between *subsistence farming* and *commercial farming*.

	SUBSISTENCE FARMING	COMMERCIAL FARMING
Risk		
Capital investment		
Management skill		

(6)

2.9 A farmer uses technology that enables him/her to move from broadcasting fertilisers to applying it only to a specific area where it is required. The farmer uses the global positioning system (GPS), which enables accurate steering of tractors, variable-rate technology (VRT) and monitoring of production while crops are being harvested. This allows the farmer to see exactly how much has been harvested from specific areas in a field.

2.9.1 Identify the farming technique described in the scenario above. (1)

2.9.2 Identify a device which plays a central role in the farming technique in the scenario above. (1)

2.9.3 State FOUR advantages of the farming technique identified in QUESTION 2.9.1. (4)

2.9.4 Recommend TWO other devices, NOT mentioned in the scenario above, that the farmer can use for successful implementation of the farming technique. (2)

2.10 Happy customers are the most important key to success. People do not only come to hunt or fish or ride a horse or a tractor. They also come to have fun and relax. If you take care of your customers, you will succeed. Always ask your customers what they liked about their stay and what could be improved.

[Source: Mike Wetter (consultant), Mike Wetter and Associates]

2.10.1 Indicate the production enterprise discussed in the scenario above. (1)

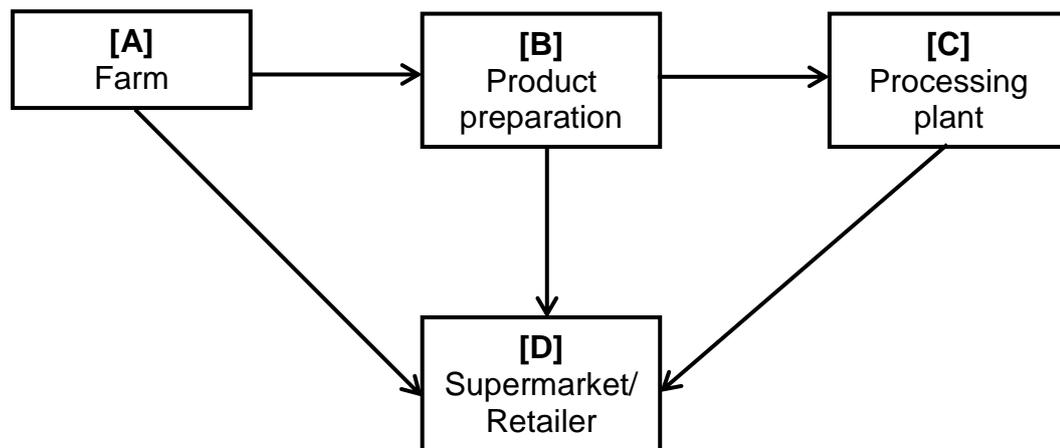
2.10.2 State TWO methods that a farmer can use to obtain information from customers about the level of satisfaction of their stay on the farm. (2)

[50]

QUESTION 3: BUSINESS PLANNING, ENTREPRENEURSHIP, MARKETING, PRICE DETERMINATION AND THE MANAGEMENT PROCESS

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

- 3.1 Name THREE advantages of good planning. (3)
- 3.2 Name TWO human relationship skills that will apply to a farmer as an entrepreneur who wants to start a new agricultural enterprise. (2)
- 3.3 A farmer wants to expand a crop farming enterprise to include livestock production. The farmer requests you to assist in compiling a business plan to include the new livestock enterprise.
- 3.3.1 List FOUR components of the existing business plan that will have to be altered to make provision for the new livestock enterprise. (4)
- 3.3.2 Discuss THREE factors that the farmer has to consider when starting the new enterprise. (3)
- 3.4 The following flow chart represents the sequence in marketing an agricultural product:



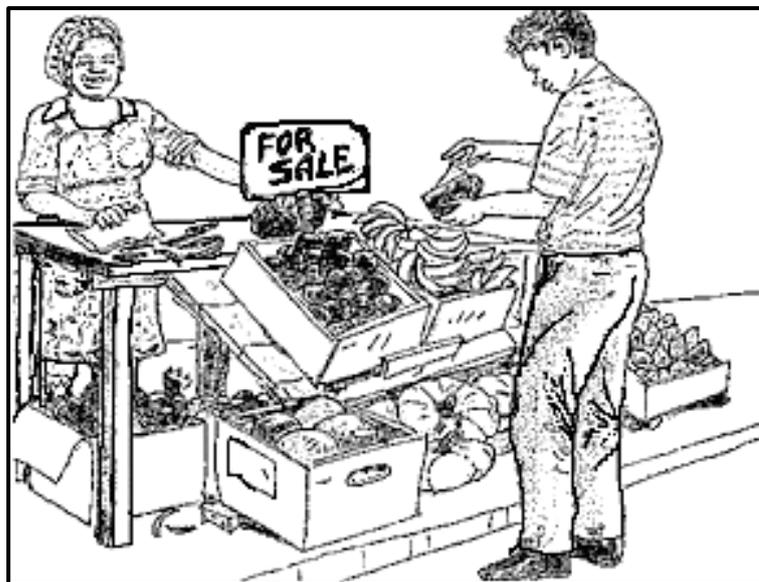
- 3.4.1 Identify the marketing concept that is illustrated by the flow chart above. (1)
- 3.4.2 State TWO factors that may hamper the marketing of the product at **D**. (2)
- 3.4.3 Indicate TWO actions that will improve the marketing between **A** and **D**. (2)
- 3.5 Name FOUR marketing functions. (4)

3.6 The table below shows the supply and demand of an agricultural product at different prices.

PRICE (R/kg)	SUPPLY PER WEEK (kg)	DEMAND PER WEEK (kg)
8	300	1 000
10	400	900
12	580	800
14	750	750
16	800	600
18	950	550
20	1 000	500

- 3.6.1 Use the information in the table above to draw TWO line graphs on the same axis, one for supply and one for demand. (6)
- 3.6.2 Determine the equilibrium price for the products in the table above. (1)
- 3.6.3 Calculate what will happen if the demand doubles and the supply increases by only 20% at the price of R18,00. Show ALL the steps. Also draw a conclusion on the availability and price of the product. (5)

3.7 The picture below represents a marketing system used in agriculture.



- 3.7.1 Identify the marketing system shown in the picture above. (1)
- 3.7.2 Compare the price stability of the marketing system identified in QUESTION 3.7.1 with *cooperative marketing*. (2)
- 3.7.3 Critically analyse the influence of the Consumer Protection Act, 2008 (Act 68 of 2008) on the marketing system shown in the picture above. (2)

3.8 There are FIVE management tasks which a farmer should fulfil in respect of management activities.

3.8.1 Define the term *farm management*. (2)

3.8.2 State TWO possible steps a farmer has to implement for effective control of workers on a farm. (2)

3.9 When a farmer employs a new worker, an employment contract must be drawn up. The terms and conditions of the contract must comply with labour legislation.

Some of the items to be included in an employment contract are the following:

- Working hours
- Develops work prospects and quality of life
- Provides for legal process through which a landowner can issue an eviction order against an employee
- Compensation for injury while on duty
- Wages/Salaries
- A farmer can be prosecuted if an employee has been illegally evicted from a farm
- Conditions for termination of service
- Affiliation to trade unions and right to strike
- Supply of protective clothing
- Promotes peace and democracy in the workplace
- Promotes economic development and social justice
- Intends to develop the skills of the workforce
- Security of resident farm workers

Choose ONE item from the list above which is addressed by EACH of the following Acts:

3.9.1 Basic Conditions of Employment Act, 1997 (Act 75 of 1997) (1)

3.9.2 Labour Relations Act, 1995 (Act 66 of 1995) (1)

3.9.3 Skills Development Act, 1998 (Act 97 of 1998) (1)

3.9.4 Extension of Security of Tenure Act, 1997 (Act 62 of 1997) (1)

3.10 Explain how a farmer can motivate farm workers through effective communication. (2)

3.11 Name the main purpose of farm product advertising. (2)

[50]

QUESTION 4: FINANCIAL PLANNING, RECORDKEEPING, HARVESTING, VALUE ADDING AND PACKAGING

Start this question on a NEW page.

- 4.1 Identify the type of budget used for EACH of the following scenarios:
 - 4.1.1 A farmer wants to add a new processing unit to the farm. (1)
 - 4.1.2 A farmer needs seasonal workers during the harvesting season. (1)
 - 4.1.3 Expected flow of money as income and expenditure through an enterprise (1)
 - 4.1.4 A farmer wants to have the totals of the possible income and the possible expenditure of the different production enterprises as one combined document. (1)
- 4.2 State THREE main features of a cash-flow budget. (3)
- 4.3 The document below shows the payslip of a farm worker.

FARM NAME			
Address of the farm			
Payslip			
Employee: xxxxxxxxx			
ID number: xxxxxxxxx			
Tax number: xxxxxxxxx			
UIF number: xxxxxxxxx			
Bank details: xxxxxxxxx			
Date employed: 2015-08-01			
Pay period:		2022/10/01– 2022/10/31	
EARNINGS	AMOUNT	DEDUCTIONS	AMOUNT
Basic salary	R10 750,00	Tax	xxxxxxxxxx
Overtime	xxxxxxxxxx	UIF	xxxxxxxxxx
GROSS EARNINGS:	xxxxxxxxxx	TOTAL DEDUCTIONS:	xxxxxxxxxx
NET SALARY:			xxxxxxxxxx

- 4.3.1 Determine whether the farm worker, whose payslip is shown above, is permanently employed or a casual worker. Give TWO reasons for your answer. (3)
- 4.3.2 Explain how the farm worker benefits from UIF deductions. (2)

4.3.3 16 June is Youth Day, a public holiday in South Africa, and a farm worker was asked to work a full day (8 hours). If the farm worker earns R61,08 per hour, calculate how much overtime the farm worker earned (before tax) for 16 June. (3)

4.3.4 Calculate the gross earnings of the farm worker for June. (3)

4.4 Copy and complete the table below in the ANSWER BOOK to distinguish between using *handwritten notes* and a *computer* for recordkeeping.

	HANDWRITTEN NOTES	COMPUTER
Amount of data		
Precision farming		
Access to information		

(6)

4.5 State THREE disadvantages of mechanical harvesting. (3)

4.6 Study the label on the product below and answer the questions that follow.

The label on the front of the bottle:



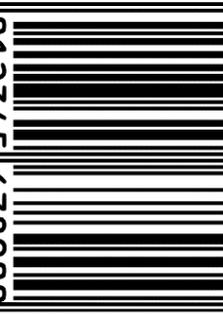
The label at the back of the bottle:

Delicious when spread thinly on toast. Made from yeast – the richest natural source of B vitamins.

MARMITE is a registered trademark of CPC International Inc. Produced for CPC (UK) Ltd, PO Box 237, ESHER, Surrey KT10 9XQ. Licensed user.

Store in a cool, dark place.

5 012345 678900



Ingredients: Yeast Extract, Salt, Vegetable Extract, Niacin, Thiamin, Spice Extracts, Riboflavin, Folic Acid, Vitamin B₁₂. This jar contains approx. 125 servings.

BEST BEFORE

2022-03-08



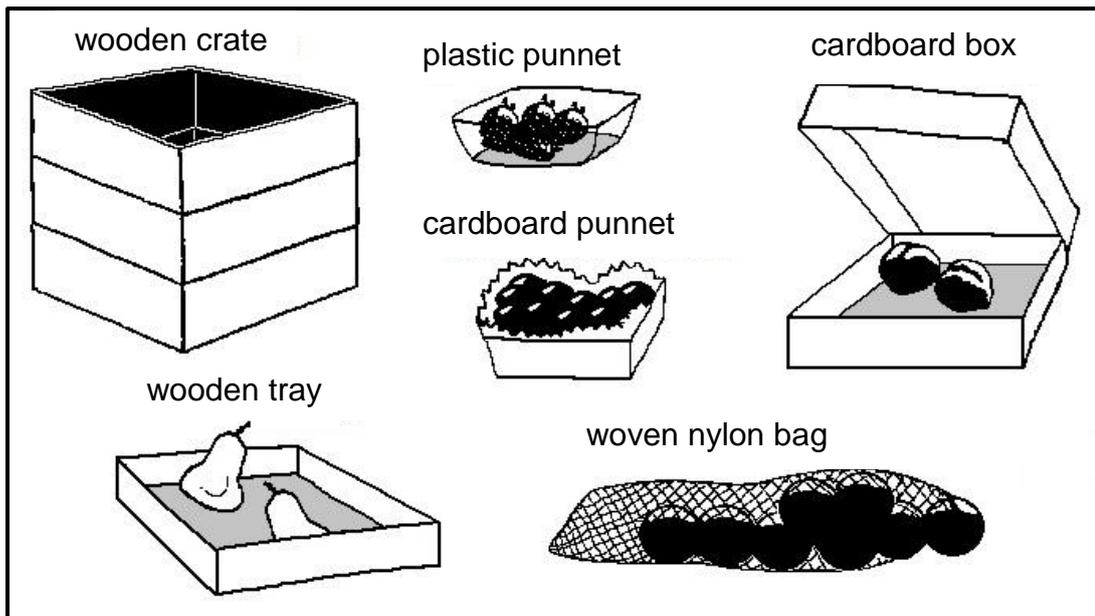
[Source: CPC international Inc.]

- 4.6.1 Name THREE aspects which prove that this product adheres to labelling legislation. (3)
- 4.6.2 State ONE important aspect that does NOT appear on the label. (1)
- 4.6.3 Explain the meaning of the BEST BEFORE date on the label. (2)
- 4.6.4 Explain why it will be beneficial for the producer to add this logo or any other society's logo on the label of a product:



(2)

- 4.7 Containers for the packaging of fresh produce can have a harmful effect on the environment because some do not decompose easily.



- 4.7.1 Select TWO containers from the pictures above that do NOT decompose easily. (2)
- 4.7.2 Describe what a farmer can do to decrease the negative environmental impact of packaging materials. (3)

- 4.8 Copy and complete the table below in the ANSWER BOOK to indicate the differences between *pasteurisation* and *sterilisation*.

	PASTEURISATION	STERILISATION
Elimination of microbes		
Impact on nutritional value		
Storage		

(6)

- 4.9 Indicate the purpose of drying food as a processing method. (2)

- 4.10 Blanching is a method that is used to eliminate micro-organisms.

State TWO other advantages of blanching in food processing. (2)

[50]

TOTAL SECTION B: 150
GRAND TOTAL: 200