



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

DATA MANAGEMENT: FARMING N5

(4090465)

**25 May 2021 (X-paper)
09:00–12:00**

Candidates have 25 minutes to read the instructions before the examination starts.

This question paper consists of 13 pages.

042Q1J2125

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
DATA MANAGEMENT: FARMING N5
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

YOU HAVE 25 MINUTES TO READ THE FOLLOWING INSTRUCTIONS BEFORE ANSWERING THE QUESTION PAPER. INVIGILATORS WILL EXPLAIN, IF NECESSARY.

1. The time allocated for the question paper is 3 hours. No additional printing time is allowed
2. The question paper comprises two sections.
SECTION A: THEORY (100 MARKS)
SECTION B: Word Processing/Text manipulation, spread sheet and database (100 marks)

SECTION A must be answered in the ANSWER BOOK which must be placed on top of all the PRINTOUTS in the yellow folder.

SECTION B must be done on the computer with the aid of word processing, spread sheet and database programs. Each PRINTOUT must have both the EXAMINATION NUMBER and the QUESTION NUMBER printed either as header or footer as instructed. Handwritten EXAMINATION NUMBERS and QUESTION NUMBERS will not be accepted.

3. All work on the computer should be saved regularly to prevent loss of work. No additional time may be allowed for such lost work. It is the candidates' responsibility to protect their answers from obliteration. In the event of a power failure or a computer or printer breakdown, the invigilator must make the necessary arrangements for the candidates to continue and the actual time lost must be added.
4. If there is a problem with certain printers, for example it does not print ë; a report regarding this must be sent with the answer sheets of that examination centre.
5. A candidate may have in his/her possession a typing ruler, a dictionary and a list of ASCII codes. A spelling checker may be used.

6. Each answer must be printed on a separate A4 paper or on continuous computer paper, unless specified otherwise. If continuous paper is used, the sheets must be separated from one another. PRINTOUTS must be on ONE side of the paper and must be placed in the EXAMINATION FOLDER in the same order as that of the questions in the examination paper. Marks will be subtracted for answer sheets not arranged in the correct order, for printing on both sides of the paper or for stapling together of ANSWER SHEETS.
7. At the conclusion of the examination session all PRINTOUTS to be marked must be placed in the EXAMINATION FOLDER and all other PRINTOUTS, together with the EXAMINATION FOLDER, must be handed to the invigilator. No PRINTOUTS whatsoever may be removed from the examination room or put into waste-paper bins. PRINTOUTS not submitted for marking must be collected at the end of each session and must be destroyed at the end of the day. Only ONE PRINTOUT per question or subsection of a question may be handed in.
8. In order to print the original as well as the edited answers candidates are reminded to save the work after each separate section before it is printed.
9. At the end of examination session each candidate must hand in the PRINTOUTS of the answers as well as a diskette with the saved answers properly marked with the candidate's EXAMINATION NUMBER on the COVER. These diskettes must be handed to the examination section for safekeeping for one year in case enquiries should be made by the examiner/moderator and superintendents of examination. If there are no diskettes to save the answers, candidates must create folders on the computer they are working on and save the work in that folder which is named using their EXAMINATION NUMBERS. The invigilator will then save the folders on a USB and submit the USB to the examination office for safe keeping.
10. Please note that no question papers may be taken out of the examination room. All papers must be handed in. Question papers may be given to candidate at the end of the last session.
11. In the event of an examination paper being examined in more than one session, invigilators must ensure that all answers of candidates are removed from hard disks or network before candidates for the next session are allowed into the venue.
12. No candidate may print his/her work for another candidate, make his/her floppy disk/storage device available to another candidate or access other candidates' work on the network. Any attempt to access information from or transfer information to another candidate in whatever manner is a contravention of the examination rules and regulations and will be treated as an irregular act.

DO NOT TURN THE PAGE BEFORE BEING INSTRUCTED BY THE INVIGILATOR.

SECTION A (THEORY)**QUESTION 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 (1.1–1.10) in the ANSWER BOOK.

1.1 The ... option included in the control panel allows the user to install and uninstall programs.



- A Add and Remove programs
- B Add Hardware
- C Sounds and Audio Devices
- D Display

1.2 The ... is a hand-held pointing device that controls the position of the pointer on the screen.



- A keyboard
- B USB port
- C mouse
- D light pen

1.3 On the File tab, which menu command contains the properties command?

- A Options
- B General
- C Proofing
- D Info

1.4 To copy a group of nonconsecutive files ...

- A hold down the Shift key while clicking on each filename to be copied.
- B hold down the Alt key while clicking on each filename to be copied.
- C hold down the Ctrl key while clicking on each filename to be copied.
- D All the above mentioned

1.5 When a column or cell is too narrow for a value to display ...

- A a warning dialog box appears. 
- B it will be deleted.
- C the cell displays ##### or a scientific notation.
- D the cell displays an error message.

- 1.6 Which ONE of the following is a file extension associated with a compressed file?

- A COM
 - B .ZIP
 - C .EXE
 - D .TMP
- 1.7 Formulas and functions always begin with a/an ...
- A * (asterisk).
 - B & (ampersand).
 - C \$ (dollar sign).
 - D = (equal sign).
- 1.8 Which ONE of the following deselects a selected block of text?
- A Clicking anywhere outside the selected text
 - B Clicking any alignment button on the toolbar
 - C Clicking the bold, italics, or underline button
 - D All of the above
- 1.9 Hardware station frame and set of electrical connection interfaces that enable a laptop computer to serve effectively as a desktop computer:

- A Docking station
 - B UPS
 - C FireWire connection
 - D Ethernet Connection
- 1.10 Computer network limited to immediate area, usually within same building or office block:
- A Mainframe computer
 - B Local Area Network
 - C Wide Area Network
 - D Internet

(10 × 1) [10]

QUESTION 2

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1–2.10) in the ANSWER BOOK.

- 2.1 The CPU is basically the same as a disk drive. 
- 2.2 The space in the CPU is measured in cycles per second.
- 2.3 The keyboard and mouse send data toward the CPU only.

- 2.4 A screen magnifier is software that enlarges screen content.
- 2.5 The CPU controls the flow of data in and out of memory. 
- 2.6 The clock speed of the CPU is measured in millions of cycles per second.
- 2.7 Shareware is a program that has been copyrighted, but the creator offers it to anyone to copy and try out. 
- 2.8 New topology describes the method used to do physical wiring of the network.
- 2.9 Pressing Ctrl + H highlights the entire document.
- 2.10 ROM stands for Read Operating Memory

(10 × 1) **[10]**

QUESTION 3

Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–L) next to the question number (3.1–3.10) in the ANSWER BOOK.

COLUMN A		COLUMN B
3.1	Magnetic device used as external memory for magnetic storage of data	A format
3.2	Process of rewriting parts of file to contiguous sectors on hard disk to increase speed of access and retrieval	B phishing 
3.3	Program that can be used to manipulate and analyse numbers	C dot matrix
3.4	Command to prepare diskette for first use or to erase all existing data on diskette	D defragmentation
3.5	Example of impact printers 	E parental control
3.6	Illegal operation whereby criminals send fake emails to obtain personal banking and other details from recipients	F digital signature
3.7	Code attached to email to identify sender to provide receiver with means to encode reply	G hard disk
3.8	Method of sending text files from one computer to another by telephone line 	H spreadsheet
3.9	Includes several features designed to protect underage computer users	I virus
3.10	Set of instructions infecting software and introduced into executable programs	J email
		K thermal printer
		L Ms dos

(10 × 1)

[10]

QUESTION 4

- 4.1 Name and describe a device that can be connected to each of the following ports:
- 4.1.1 COM 
- 4.1.2 LPT
- 4.1.3 USB
- (3 × 2) (6)
- 4.2 Explain why computer data should be backed up. (5)
- 4.3 Why is it important to shut down a computer using the correct procedure? (2)
- 4.4 Briefly explain the function of a UPS. (2)
- [15]**

QUESTION 5

- 5.1 Describe THREE health problems which can be caused by the incorrect use of a computer. (6)
- 5.2 Describe FIVE good working practices when using a computer. (10)
- 5.3 What is the difference between *internet* and *intranet*? (4)
- 5.4 5.4.1 List FOUR types of pointing devices.  (4)
- 5.4.2 What is their main advantage over a keyboard? (1)
- [25]**

QUESTION 6

- 6.1 6.1.1 Describe THREE main functions of an operating system. (6)
- 6.1.2 Name FOUR common operating systems. (4)
- 6.2 Explain how telephone lines are used in computing. (4)
- 6.3 6.3.1 What is the function of a graphical user interface (GUI)? (2)
- 6.3.2 List FOUR advantages of using a GUI. (8)
- 6.4 Explain *software piracy*.  (2)
- 6.5 What is the purpose of formatting a disk? (4)
- [30]**

TOTAL SECTION A: 100

SECTION B: WORD PROCESSING

This section must be done on the computer using Arial 12 pt.

Your EXAMINATION NUMBER as well as the QUESTION NUMBER must appear as header on each PRINTOUT as indicated.

**QUESTION 7**

Below is a copy of the document keyed in and saved as QUESTION 7 on the computer.

One definition of marketing is that it is a human activity directed at satisfying needs and wants through an exchange process. Another definition is that it is the performance of all business activities involved in the flow of goods and services from the point of initial production until they are in the hands of the ultimate consumer.

Marketing mix

Marketing mix can be defined as the set of controllable tactical marketing tools (product, price, place and promotion) that a business uses to respond to its target market. The marketing mix consists of everything an enterprise can do to influence the demand for its products. All possible factors can be grouped into four categories known as the four Ps of marketing: Product, Price, Place and Promotion.

Marketing other commodities



There are also other commodities that farmers in South Africa produce that are sold in South Africa itself or are exported.

Sugar

South Africa is the 13th largest sugar producer in the world. About 50% of the product is exported to Africa, the Middle East, North America and Asia.

Wine 

South Africa is the 10th largest wine producer in the world and exports over 240 million litres per annum. This sector provides employment for just under 70 000 people. Some 110 000 hectares are under vine cultivation.

Fruit

Twelve percent of the total earnings from agricultural export comes from deciduous fruit.

Vegetables

Vegetable farmers in South Africa produce potatoes, tomatoes, green mealies and sweetcorn. Some 50% of vegetables are marketed at fresh produce markets situated in major cities and towns, for example Johannesburg and Durban. The balance of the vegetables is marketed directly to supermarkets, fresh produce stores and informal markets.



South African agricultural producers also produce cotton, tobacco, tea and ornamental and cut flowers. Many farmers around urban areas have started farming with grass to supply the instant lawn market – a market created by the many developments that take place in and around urban areas. Another growing industry is aquaculture, with mussels, trout, tilapia, catfish, oysters and waterblommetjies (Cape pondweed) as major aquaculture species.

- 7.1 Open the document saved as QUESTION 7 and insert your EXAMINATION NUMBER left and QUESTION 7 right as header. (1)
 - 7.2 Apply Comic Sans MS font size 12 to the whole document. (2)
 - 7.3 Insert the following heading in Jokerman, font size 24, bold and centred:
MARKETING  (3)
 - 7.4 Change all the subheadings to upper case and bold. (2)
 - 7.5 Indent 3 cm left and right, and fully justify the paragraph below the subheading Market Mix. (2)
 - 7.6 Insert a page break before the subheading Fruit. (2)
 - 7.7 Apply a layout of TWO columns on the content on the subheadings Sugar and Wine. (2)
 - 7.8 Apply a triple-line border, double line spacing and bold on the last paragraph. (3)
 - 7.9 Insert a page number at the bottom centre.  (2)
 - 7.10 Save the document as QUESTION 7A and make a PRINTOUT. (1)
- [20]**

QUESTION 8: SPREADSHEET

- 8.1 Create the document below in a spreadsheet program. Use the exact cell references as indicated.



(5)

1	MAKHANANI FRUIT FARM								
2									
3	SALES REPORT: JANUARY-MARCH 2018								
4									
5	FRUIT	JAN	FEB	MARCH	UNITS SOLD	UNIT PRICE	TOTAL BE-FORE	VAT 15%	TOTAL INCOME
6									
7	Naartjies	250	270	290		11,59			
8	Peaches	230	250	270		12,99			
9	Oranges	10	10	10		15,99			
10	Mangoes	200	180	160		10,99			
11	Pawpaw	350	450	550		4,59			
12	Apples	450	550	650		9,99			
13	Litchis	120	100	80		8,99			
14	TOTAL								

- 8.2 Insert your EXAMINATION NUMBER and QUESTION 8A on the right-hand side as a header (2)
- 8.3 Adjust the column to fit all the data as indicated. (2)
- 8.4 Insert horizontal and vertical lines using the method with which you are familiar.  (2)
- 8.5 Save the document as QUESTION 8A.
- 8.6 Print the document in A4 landscape with row and column headings without the grid lines. (2)

QUESTION 8B

- 8.7 Retrieve the document saved as QUESTION 8A and change the question number to 8B.  (2)

	A	B	C	D	E	F	G	H	I
1	MAKHANANI FRUIT FARM								
2									
3	<i>SALES REPORT: JANUARY-MARCH 2018</i>								
4									
5	FRUIT	JAN	FEB	MARCH	UNITS SOLD	UNIT PRICE	TOTAL BE-FORE VAT	VAT 15%	TOTAL INCOME
6									
7	Naartjies	250	270	290	A	11,59	B	C	D
8	Peaches	230	250	270	↓	12,99	↓	↓	↓
9	Oranges	10	10	10	↓	15,99	↓	↓	↓
10	Mangoes	200	180	160	↓	10,99	↓	↓	↓
11	Pawpaw	350	450	550	↓	4,59	↓	↓	↓
12	Apples	450	550	650	↓	9,99	↓	↓	↓
13	Litchis	120	100	80	↓	8,99	↓	↓	↓
14	TOTAL	E							

- 8.8 In A1, format the heading to Algerian 20 pt, merge and centre cell A1–I1. (4)
- 8.9 Change the subheadings to Brush Script MT font 16 and merge cell A3–I3. (4)
- 8.10 Apply bold and italics to row 5 and rotate text upwards.  (4)
- 8.11 Provide the formulae and/or function for cells marked with letters of the alphabet. Use cell references and absolute addresses where applicable.
- A UNITS SOLD = Calculate the unit sold per quarter (2)
- B TOTAL BEFORE VAT = Units Sold multiplied by Unit Price (2)
- C VAT = 15% of Total Income before VAT (2)
- D TOTAL INCOME=.Add Total Before VAT and VAT (2)
- E TOTAL= Sum of each column (2)
- 8.12 Display all figures representing currency with the R sign and 2 decimals. (2)
- 8.13 Apply bold to the last row.  (2)
- 8.14 Print the document in A4 landscape without row and column headings or gridlines. Save the document as QUESTION 8B. (2)

QUESTION 8C

- 8.15 Retrieve the document saved as QUESTION 8B and change the question number in the header to QUESTION 8C. (1)
- 8.16 Display the formulae.  (6)
- 8.17 Hide columns B to D then adjust the column widths to fit on ONE A4 page. (1)
- 8.18 Save the document as QUESTION 8C and print on an A4 landscape page with row and column headings but without gridlines. (2)
- [53]**

QUESTION 9: DATABASE

- 9.1 Open the database program and create a database FRUIT FARM and your EXAMINATION NUMBER. 
- 9.2 Create the following fields:

FIELD	INFORMATION
NO	Auto number
FRUIT	20 characters
UNIT SOLD	Long integer
TOTAL AMOUNT	Currency (Not more than R12 599.99)
VAT	Currency (Not more than R12 599.99)
DATE SOLD	Format DD/MM/YYYY
EXAM NO.	13 characters
QUESTION 9	10 characters

(8)

- 9.3 Key in the following records and save the table as MAKHANANI.
Make a PRINTOUT of the TABLE on an A4 landscape page.



(10)

NO	FRUIT	UNIT SOLD	TOTAL AMOUNT	VAT AMOUNT	DATE SOLD	EXAM NUMBER	QUESTION 9
1	APPLES	1650	R16483.30	R2307.69	2018/07/10	YOUR EXAM NO.	QUESTION 9
2	BANANAS	750	R9742.50	R1363.95	2018/08/14	YOUR EXAM NO.	QUESTION 9
3	PEACHES	300	R2697.00	R377.58	2018/08/31	YOUR EXAM NO.	QUESTION 9
4	NAARTJIES	1350	R6196.50	R867.51	2018/08/20	YOUR EXAM NO.	QUESTION 9
5	ORANGES	1650	R16483.50	R2307.69	2018/08/06	YOUR EXAM NO.	QUESTION 9
6	GRAPE	30	R479.70	R67.16	2018/08/22	YOUR EXAM NO.	QUESTION 9
7	MANGOES	540	R5934.60	R830.84	2018/08/13	YOUR EXAM NO.	QUESTION 9
8	PAWPAW	810	R9387.19	R1408.19	2018/08/16	YOUR EXAM NO.	QUESTION 9

- 9.4 Make a PRINTOUT of the structure of the TABLE above. The PRINTOUT must be portrait format.



- 9.5 Create a report using the following headings:

FRUIT	TOTAL AMOUNT	DATE SOLD
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(3)

- 9.6 Sort the data in ascending order according to the date sold.

(3)

- 9.7 The title of the report must be your EXAM NO. QUEST 9 REPORT

(3)

- 9.8 Make a PRINTOUT of the report on an A4 portrait page.



[27]

TOTAL SECTION B: 100
GRAND TOTAL: 200