



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

N310(E)(N23)H

NATIONAL CERTIFICATE

DATA MANAGEMENT: FARMING N6

(4090476)

23 November 2018 (X-Paper)

09:00–12:00

A typing ruler, a dictionary and a list of ASCII codes may be used.

Spell check may be used.

This question paper consists of 17 pages.

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
DATA MANAGEMENT: FARMING N6
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. This question paper comprises of two sections:

SECTION A: Theory: 80 marks
SECTION B: Word processing/Text manipulation, Spreadsheet and Database: 120 marks
5. Answer **SECTION A** in the ANSWER BOOK.
6. Write neatly and legibly.
7. Do **SECTION B** on the computer with the aid of a word processing, spread sheet and database program.
8. Enter both your EXAMINATION NUMBER and the QUESTION NUMBER as per instruction in the header or footer of EACH PRINTOUT. Hand written EXAMINATION NUMBERS and question numbers will NOT be accepted.
9. SAVE all work on the computer at regular intervals to prevent loss of work in the event of a power failure. NO additional time may be allowed for such loss. It is the candidate's responsibility to protect their answers from obliteration.
10. Print each question immediately after completion. NO additional printing time is allowed.
11. In the event of a power failure or a computer or printer breakdown, the invigilator will make the necessary arrangements for the candidates to continue and the actual time lost will be added.
12. Invigilators: If there is a problem with a printer, e.g. if it does not print ë; send a report with the centre's answer sheets.
13. Print each answer on a separate sheet of paper.
14. Print on ONE side of the paper only. Marks will be subtracted for printing on both sides of the paper.

15. Print only on A4 paper or on continuous computer paper, unless otherwise specified or a letterhead is supplied.
16. Candidates making use of continuous paper: Tear the pages apart before handing it in.
17. Do NOT staple answer sheets together. Marks will be subtracted for stapling answer sheets together.
18. Place ALL PRINTOUTS you wish to be marked in the yellow folder immediately.
19. Hand in only ONE PRINTOUT per question or subsection of a question.
20. Place PRINTOUTS in the folder in the CORRECT SEQUENCE. Marks will be subtracted for answer sheets not arranged in the exact number order used in this question paper.
21. Place the ANSWER BOOK on top of all the printouts in the yellow folder.
22. At the end of the examination session hand ALL other PRINTOUTS, together with the examination folder, to the invigilator. Do NOT remove any printouts from the examination room or put it into wastepaper bins.
23. Invigilators: Destroy all printouts not submitted for marking at the end of each session.
24. Hand in a DISKETTE with the saved answers (properly marked with your EXAMINATION NUMBER on the cover) with the folder with printed answers.
25. Invigilators: Hand these diskettes to the examination section for safekeeping for one year in case of enquiries.
26. Candidates: If no diskettes are available, create a FOLDER on the computer you are working on and save all your work in that folder. Name the folder using your EXAMINATION NUMBER.
27. Invigilators: Save ALL folders on a USB and submit the USB to the Exam office for safe keeping for ONE year.
28. Hand in all question papers with the folder and diskette. DO NOT take any paper from the examination room. Invigilators may give question papers to candidates at the end of the last session.
29. Candidates: DO NOT print any work for another candidate.
DO NOT make any storage device available to another candidate.
DO NOT access any other candidate's work on the network.
Any attempt to transfer information to another candidate or to access another candidate's information in whatever manner is a contravention of the examination rules and regulations and will be treated as an irregular act.
30. Invigilators: Ensure that all answers of candidates are removed from the hard disk or network at the end of each session BEFORE candidates for the next session are allowed into the room.

SECTION A: THEORY**QUESTION 1**

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.5) in the ANSWER BOOK.

1.1 The following peripheral can be classified as both input and output device:

- A speaker
- B laser printer
- C visual display unit
- D plotter

1.2 ... means illegally duplicating copyrighted software.

- A Data Publicity Law
- B Software piracy
- C Data Protection Act
- D Copyright

1.3 ISP is an acronym for ...

- A Internet Service Provider.
- B International Service Provider.
- C International Sales Provider.
- D Internet Sales Provider.

1.4 An intranet is ...

- A a network system.
- B a filling system.
- C a private company network.
- D a private company network including external users.

1.5 The right mouse button is used to ...

- A display a shortcut menu.
- B select an option.
- C select bold.
- D insert a toolbar.

(5 × 2) [10]

QUESTION 2

Choose an item from COLUMN A that matches a description in COLUMN B. Write only the letter (A–H) next to the question number (2.1–2.6) in the ANSWER BOOK.

COLUMN A		COLUMN B	
2.1	Heart and the brain of the computer	A	multimedia player
2.2	Where multiplication, addition, subtraction and division are done	B	tablet PC
2.3	Auxiliary memory	C	RAM
2.4	Device for storing, organising and playing audio files, movies and music	D	ALU
2.5	Slate with a removable keyboard or a convertible model with an integrated keyboard	E	hard disk
2.6	Used for keeping phone directories, electronic diaries, calendars and as a calculator	F	PDA
		G	central processing unit
		H	laptop

(6 × 2)

[12]**QUESTION 3**

The use of the internet contributes in many ways to any farming business.

Justify the statement above in TWO paragraphs.

(2 × 5)

[10]**QUESTION 4**

Ergonomics considers human capabilities and limitations and the environments in which they operate in the design of machines and equipment that they use.

Justify the statement above by explaining FIVE ways in which computer ergonomics caters for the needs of people using computers.

(5 × 2)

[10]

QUESTION 5

5.1 A hard drive must be prepared before one can write any data to it.

Define the following terms used in hard disk preparation:

5.1.1 Segmenting

5.1.2 Defragmentation

(2 × 2) (4)

5.2 Explain the following THREE ways in which a hard drive can be prepared.

5.2.1 Physical formatting

5.2.2 Partitioning

5.2.3 Logical formatting

(3 × 3) (9)

5.3 During logical formatting, THREE key areas are formed.

Name each area and give its function.

(3 × 2) (6)

5.4 Give the steps a computer user needs to follow when executing the defrag command.

(4)
[23]

QUESTION 6

Different methods are used to pay the supplier when purchasing a computer.

Compare *outright purchase* and *leasing*. Tabulate your response.

[6]

QUESTION 7

There are steps that a farm owner or manager must follow when purchasing computers and their peripherals.

Outline the FIVE steps that are followed by a farmer when purchasing computers for a farming enterprise.

[5]

TOTAL SECTION A: 76

SECTION B (PRACTICAL)

QUESTION 8

Execute the defrag steps mentioned in QUESTION 5.4.

Make a print screen when you reach the last step (DEFRAGMENT NOW). Insert your EXAMINATION NUMBER and QUESTION 8 as a header.

[4]



QUESTION 9: SPREADSHEET

9.1 Create the document in FIGURE 1 below in Excel (the spreadsheet program).

Use the cell references exactly as indicated. You will be penalised for using wrong cell addresses.

9.1.1 Do NOT put row and column headings or lines; they are only there so that you can see the cell addresses you need to use. (1)

9.1.2 Use the wrap text function for the column headings in row 3. (1)

9.1.3 Save the document as QUESTION 9.1.

9.1.4 Insert your EXAMINATION NUMBER and QUESTION 9.1 on the right-hand side as a header. (2)

9.1.5 Print the document on single A4 portrait without row or column headings and gridlines. (1)

	A	B	C	D	E	F
1	PHANSI PHEZULU FARM INCOME STATEMENT					
2	PRODUCTION YEAR-2016					
3		CURRENT YEAR	PREVIOUS YEAR	DIFFERENCE	DIFFERENCE %	CURRENT AVERAGE PER MONTH
4	SALES	830120	450600			
5	COST	260320	180120			
6	PROFIT	569800	270480			
7						
8	EXPENSES					
9						
10	GENERAL	140200	98500			
11	POSTAGE	850	630			
12	TOTAL					
13						
14	NET PROFIT					
15						
16						VAT
17					20%	10000
18					40%	15000
19					60%	20000
20					80%	45000
21					100%	60000

FIGURE 1

- 9.2 Retrieve the document named QUESTION 9.1 and immediately save it as QUESTION 9.2. Change the question number from QUESTION 9.1 to 9.2 and make changes as indicated in FIGURE 2 below.
- 9.2.1
- Underline the main heading PHANSI PHEZULU FARM INCOME STATEMENT.
 - Change the font type to Goudy Old Style and the font size to 18 pt.
 - Centre the main heading across the width of the spreadsheet. (4)
- 9.2.2 Change the subheading PRODUCTION YEAR-2016 to bold and italic. (2)
- 9.2.3
- Insert a blank row between row 1 and row 2.
 - Insert another blank row between row 2 and 3. (2)
- 9.2.4 Bold and centre the column headings in row 5 horizontally and vertically. Apply *Wrap Text* as shown. (2)
- 9.2.5 Format the colour of row 5 as Tan, Background 2, darker 25%. (1)
- 9.2.6 Calculate the answers where the letters of the alphabet A–H appear in FIGURE 2. Make use of the correct cell reference in the formulas.
- A DIFFERENCE = The difference between the current year and the previous year
- B DIFFERENCE % = The difference given as a percentage
- C PROFIT = Sales minus Cost
- D CURRENT AVERAGE PER MONTH = Current Year divided by 12
- E TOTAL = The sum of General and Postage
- F NET PROFIT = Profit minus Total Expenses
- G VAT = Use the VLOOKUP function and calculate the VAT of Sales, Cost, Profit and Expenses according to the DIFFERENCE %
- H GOVERNMENT SUBSIDY of 15% of NET PROFIT is only given when the when NET PROFIT did not reach R250 000. Calculate the amount of Government subsidy Phansi Phezulu Farm received the previous year and how much it should get in the current year. (8 × 2) (16)

- 9.2.7 Insert horizontal and vertical lines using a method with which you are familiar. (2)
- 9.2.8 Insert a double line underneath E and H. (2)
- 9.2.9 Display ALL figures that represent money with the R sign and 2 decimal places. Display ALL other figures as integers. (3)
- 9.2.10 Right align and Bold all answers calculated in A–I. (2)
- 9.2.11 Make a printout of the spreadsheet in landscape without row and column headings or gridlines. The spreadsheet must fit onto ONE page. (2)

	A	B	C	D	E	F	G
1	PHANSI PHEZULU FARM INCOME STATEMENT						
2							
3	PRODUCTION YEAR-2016						
4							
5		CURRENT YEAR	PREVIOUS YEAR	DIFFERENCE	DIFFERENCE %	CURRENT AVERAGE PER MONTH	VAT
6	SALES	830120	450600	A	B	D	G
7	COST	260320	180120	A	B	D	G
8	PROFIT	C	C	C	B	D	G
9							
10	EXPENSES						
11							
12	GENERAL	140200	98500	A	B	D	G
13	POSTAGE	850	630	A	B	D	G
14	TOTAL	E	E	A	B	D	G
15							
16	NET PROFIT	F	F	F	B	B	G
17	GVT SUBSIDY	H	H	H			
18						VAT	
19					20%	10000	
20					40%	15000	
21					60%	20000	
22					80%	45000	
23					100%	60000	

FIGURE 2

- 9.3 Retrieve the document name QUESTION 9.2 and immediately save it as QUESTION 9.3.
- 9.3.1 Display the formulae. (8)
- 9.3.2 Change the question number in the header to QUESTION 9.2. (1)
- 9.3.3 Adjust the column widths. (1)
- 9.3.4 Save and print the document on a single landscape with row and column headings but without gridlines. The document must fit onto one A4 page. (3)
- 9.4 Retrieve the document you saved as QUESTION 9.3 and immediately save it as QUESTION 9.4.
- 9.4.1 Create a pie chart to compare the different percentages of sales, cost and profit. (3)
- 9.4.2 Insert the following information as the heading of your graph:
- PHANSI PHEZULU
EXAM NUMBER
QUESTION 9.4
- 9.4.3 Legends must appear underneath the pie chart. (1)
- 9.4.4 The different percentages must appear inside each part of the pie chart as data labels. (1)
- 9.4.5 Explode the smallest part of the pie chart. (2)
- 9.4.6 Move the graph to a new sheet. (1)
- 9.4.7 Print the graph in landscape on one page. (2)

[69]

QUESTION 10: WORD

The computer lecturer has already keyed in a document on the data diskette/desktop. It is saved as 'WORD DOCUMENT'. The following is a copy of the document:

Understanding malicious software

Malicious Software (malware) is software created by an unscrupulous programmer and sent to users' computers without their knowledge or consent in order to disrupt the performance or destroy the operation of the computer.

A virus is one type of malicious software. The malicious code is carried from one computer by some kind of medium, usually when an infected file is opened. When activated, it causes software on the host system to send more copies of the infected file to other computers.

Dangers of the internet

Be careful when you download files from the web as there is always the risk that the downloaded item may be infected with a computer virus. A virus checker must be installed.

A hacker

A hacker is a person using a computer or computer software to obtain unauthorised access to a computer network or data, or to crash or steal information from a computer or computer system.

A worm

A worm is designed to multiply as many times as possible through self-copying, thus filling up disk space and consuming other computer and network resources.

Beware of:

Other people's disks
Email attachments
Website downloads
Pirated software

- 10.1 Open the document WORD DOCUMENT created by your computer lecturer.
- 10.2 Immediately save it under the new name QUESTION 2.
- 10.3 Make the following changes on the document:
- 10.3.1 Change the heading 'Understanding malicious software' to uppercase, bold, underline and Centre. Change the font type to Algerian and font size to 16 pt. (6)
- 10.3.2 Change the left margin of the entire document to 4cm/1.58". (1)
- 10.3.3 Change the word 'computer' where it is standing alone, through the text with the word '**cyber**' (bold and italics). (3)
- 10.3.4 Change the text into two columns as explained below.
A single vertical line must divide the two columns.
The first column must contain the paragraph with the subheading 'Dangers of the internet'.
The second column must contain the paragraph with the subheading 'A hacker'.
Change paragraphs in the columns to full justification. (4)
- 10.3.5 Insert a page break after the columns.
The heading 'A worm' must start on the next page. (2)
- 10.3.6 Bold and underline all subheadings. (2)
- 10.3.7 Insert bullets of your choice to the sentences under the heading 'Beware of': (1)
- 10.3.8 Insert the following table and its contents.
- | COMPUTER THREATS | EFFECTS |
|------------------|--------------------------------------------------------------------------------|
| Spyware | It gathers information about the user and the computer work habit of the user. |
| Trojan horse | It remains inactive until it is triggered by an event. |
| Phishing | It is an effort to trick you to reveal personal or financial information. |
- (2)
- 10.3.9 Insert a page number at the bottom right of all pages **except** page ONE. (2)
- 10.4 Key in your EXAMINATION NUMBER/IDENTITY NUMBER in the header on the left and QUESTION 2 on the right. (2)
- 10.5 Save the document and make a PRINTOUT.

[25]

QUESTION 11: DATABASE

The best way to keep data in an organised way is by using Microsoft Access.

Create a database using the file name SOFTWARE.

11.1 Create the following fields

FIELD	INFORMATION
NO.	Auto number
TYPE	20 characters
DATE PURCHASED	The date must be in the format DD/MM/YYYY
NUMBER IN STOCK	Long integer
PRICE	Currency (Not more than R12 599,99
EFFECTIVE	YES/NO
EXAM NO.	13 characters
QUESTION 11	10 characters

11.2 Key in the following records and save the table as ANTIVIRUS.
Make a printout of the table on A4 landscape.

(10)

NO	TYPE	DATE PURCHASED	NUMBER IN STOCK	PRICE	OLD	EXAM NUMBER	QUESTION 3
1	DR SOLOMON	2013/01/15	50	R300,00	True	YOUR EXAM NO.	QUESTION 3
2	AVG	2013/03/01	120	R350,00	False	YOUR EXAM NO.	QUESTION 3
3	PANDA CLOUD	2014/01/30	60	R200,00	False	YOUR EXAM NO.	QUESTION 3
4	MICROSOFT SECURITY	2014/05/02	56	R50,00	True	YOUR EXAM NO.	QUESTION 3
5	AVAST	2015/12/06	35	R60,00	True	YOUR EXAM NO.	QUESTION 3
6	AVIRA	2016/06/25	65	R220,00	False	YOUR EXAM NO.	QUESTION 3
7	COMODO	2016/10/09	2	R280,00	True	YOUR EXAM NO.	QUESTION 3

11.3 Make a PORTRAIT PRINTOUT of a structure of the table above. (5)

11.4 Create a report using the following headings:

TYPE	DATE PURCHASED	NUMBER IN STOCK	PRICE
------	-------------------	--------------------	-------

11.4.1 Only types with names that start with an 'A' must appear on the report. (1)

11.4.2 Sort the data in descending order according to the date purchased. (2)

11.4.3 The title of the report must be EXAM NO. QUEST 9.4 REPORT'. Use your exam number. (2)

11.4.4 The calculated total price must appear underneath the last price and the term TOTAL PRICE must appear underneath the last number in stock. (4)

11.4.5 Make a printout of the report on A4 portrait. (1)

[26]

TOTAL SECTION B: 124
GRAND TOTAL: 200