



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

DATA MANAGEMENT: FARMING N6

(4090476)

22 September 2020 (X-paper)
09:00–12:00

This question paper consists of 15 pages.

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

INSTRUCTIONS TO INVIGILATORS AND CANDIDATES

CANDIDATES HAVE 25 MINUTES TO READ THE INSTRUCTIONS.

READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE QUESTION PAPER. INVIGILATORS WILL EXPLAIN ANYTHING THAT IS UNCLEAR, IF NECESSARY.

1. The question paper comprises TWO sections.

SECTION A: Theory (80 marks)

SECTION B: Word processing/text manipulation, spreadsheet, and database (120 marks)

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

SECTION B will be done on the computer with the aid of word processing, spreadsheets and database programs. Each PRINTOUT must have both the EXAMINATION NUMBER and the QUESTION NUMBER as header or as footer, as instructed. Handwritten EXAMINATION NUMBERS and QUESTION NUMBERS are NOT acceptable.

3. PRINTOUTS may be made on A4 paper or on continuous computer paper, unless a specified size of paper is required in a question or a letterhead is supplied. The PRINTOUTS must be placed in the folder in the correct sequence. Marks will be deducted for answer sheets NOT in the correct order.
4. Candidates using continuous paper must separate the pages before handing them in.
5. NO additional printing time is allowed.
6. 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.
7. If there is a problem with certain printers, for example, it does not print 'ë', a report must be sent with the centre's ANSWER SHEETS.

8. 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.
9. Each answer must be printed on a separate sheet of paper and on ONE side of the paper only.
10. Do NOT staple ANSWER SHEETS together. Marks will be subtracted for printing on both sides of the paper as well as stapling of ANSWER SHEETS.
11. At the conclusion of the examination session, ALL PRINTOUTS that a candidate wishes to be marked must be placed in the EXAMINATION FOLDER, and ALL other PRINTSOUTS, together with the EXAMINATION FOLDER, MUST be handed to the invigilator. NO PRINTOUTS whatsoever may be removed from the examination room or put into wastepaper 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.
12. ALL work on the computer should be saved at regular intervals to prevent loss of work in the event of a power failure. NO additional time MAY be allowed for work lost due to not saving it. It is the candidate's responsibility to protect the answers from being obliterated.
13. In order to print the original as well as the edited answers candidates are reminded to save their work after each separate section before it is printed.
14. At the end of the examination session, each candidate must hand in the PRINTOUTS of the answers as well as a diskette containing 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 all their work in that folder, using their examination numbers to name the folder. The invigilator will then save the folders on a USB flash drive and submit the USB flash drive to the Examination office for safekeeping (for ONE year).
15. NO paper may be taken out of the EXAMINATION ROOM, including question papers. ALL papers must be handed in. Question papers may be given to candidates at the end of the last session.
16. In the event of more than one examination session, invigilators must ensure that ALL answers and folders of candidates are removed from the hard disks or the network before candidates for the next session are allowed into the examination room.

17. NO candidate may print his/her work for another candidate, make his/her flash 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 it will be treated as an irregular act.

SECTION A: THEORY**QUESTION 1**

1.1 Various options are given as possible answers to the following questions. Write only the letter (A–D) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 To produce high-quality hard-copy graphics in colour you would want to use a/an ...

- A RGB monitor.
- B plotter.
- C ink-jet printer.
- D laser printer.



1.1.2 The following is NOT an ergonomic principle which a computer user must consider when using a computer:

- A Good, sufficient, indirect light
- B Good ventilation
- C Chair with wheels
- D Distance and height to the screen

1.1.3 ISP is an acronym for ...

- A internet service provider.
- B international service provider.
- C international sales provider.
- D internet sales provider.



1.1.4 Which ONE of the following peripherals can be classified as both an input and output device?

- A Speaker
- B Laser printer
- C Visual display unit
- D Plotter

1.1.5 An interface on the computer that allows asynchronous transmission of data characters one bit at a time:

- A Parallel port
- B USB port
- C Fire wire port
- D Serial port



1.1.6 The term 'hardware' refers to ...

- A a set of instructions that a computer must have to function.
- B the physical components of a computer.
- C those components that you cannot touch.
- D a word-processing application.

1.1.7 ROM ...



- A is data that can be changed.
- B is a temporary memory.
- C is available for storing data.
- D forms a small part of total memory.

1.1.8 Which ONE of the following is a valid and more precise statement?

- A 1 KB = 1 024 bytes
- B 1MB = 1 024 bytes
- C 1KB = 1 000 bytes
- D 1 MB = 1 000 bytes

1.1.9 ... implies illegally duplicating copyrighted software.



- A Data publicity law
- B Software piracy
- C The Data Protection Act
- D Copyright

1.1.10 The right mouse button is used to ...

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

(10 × 2) (20)



1.2 Choose a word or term from the box below that matches the description given in the question number (1.2.1–1.2.10). Write only the word or term next to the question number in the ANSWER BOOK.

USB port; memory; serial port; peripherals; arithmetic logic unit;
 FireWire port; CD and DVD-ROMs; speakers and sound cards;
 central processing unit; WAN; trojan horse; modem; relative formatting;
 file virus; uninterruptable power supply; partitioning; file allocation table;
 physical formatting; tablet PC; RAM; PDA

1.2.1 Auxiliary memory




1.2.2 To divide the hard drive into parts that can be made available to the operating system

- 1.2.3 A device that is linked to the computer and a telephone line
- 1.2.4 The brains of the computer 
- 1.2.5 Used for keeping phone directories, electronic diaries, a calendar and a calculator
- 1.2.6 Where a record of the file position is kept
- 1.2.7 An external bus standard that enables data transfer rate of 12 Mbps
- 1.2.8 Preparation of a hard disk in a format that enables Windows to write data to and retrieve data from it
- 1.2.9 Where multiplication, addition, subtraction and division are performed
- 1.2.10 Also known as iLink  (10 × 2) (20)
[40]

QUESTION 2

Before one can write data on a disk, it must be prepared.

- 2.1 Define the following terms used in hard disk preparation:
- 2.1.1 Segmenting
- 2.1.2 Defragmentation (2 × 2) (4)
- 2.2 Explain the following THREE ways in which the hard drive can be prepared:
- 2.2.1 Physical formatting
- 2.2.2 Partitioning
- 2.2.3 Local formatting  (3 × 3) (9)
- 2.3 During logical formatting, THREE important areas are formed.
Name each area and write down its function. (3 × 2) (6)
[19]

QUESTION 3

3.1 Define each of the following terms:

3.1.1 E-commerce

3.1.2 Binary system



3.1.3 Communication controller

3.1.4 Really simple syndication

(4 × 2) (8)

3.2 Write the following acronyms in full:

3.2.1 GIGO

3.2.2 MAN

3.2.3 CD-RW

3.2.4 PL/1



(4 × 2) (8)
[16]

QUESTION 4

A farm manager must follow certain steps when purchasing computers and their peripherals.

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



[5]

TOTAL SECTION A: 80

SECTION B: PRACTICAL**QUESTION 5: SPREADSHEET**

5.1 Create the following document in the spreadsheet program (Excel).

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



- 5.1.1 Do NOT input row and column headings or lines, as they were only given to highlight the cell addresses you must use. (1)
- 5.1.2 Use the wrap text function for the column headings in row 5. (1)
- 5.1.3 Save the document as QUESTION 1.1.
- 5.1.4 Insert your EXAMINATION NUMBER and QUESTION 1.1 on the right-hand side as a header. (2)
- 5.1.5 Print the document on A4 in PORTRAIT without row and column headings and gridlines. (1)




	A	B	C	D	E	F
1	AGRICULTURAL IMPORT					
2						
3	From 2010-2015					
4						
5	Type of commodity	Year	Value	Tariff	Duty status	Duty
6	4x4 Tractors	2014				
7	Seeds	2013				
8	Chemicals	2012				
9	Vehicles	2011				
10	Spraying helicopters	2010				
11	Other inputs	2015				
12						

FIGURE 1

5.2 Retrieve the document called QUESTION 5.1 and make changes as indicated in FIGURE 2 below. Immediately save it as QUESTION 5.2.



- 5.2.1 Do the following changes on the main heading 'AGRICULTURAL IMPORT': (4)
- Underline the heading.
 - Change the font size to 18 pt and the font type to Goudy Stout.
 - Centre the main heading across the width of the spreadsheet.
- 5.2.2 Change the subheading 'From 2010–2015' to bold and italic. (2)
- 5.2.3 Bold and centre (horizontally and vertically) the column headings in row 5. Apply text wrap as shown. (2)




- 5.2.4 Calculate the answers where the letters of the alphabet **A–G** appear in FIGURE 2. Make use of the correct cell reference in the formulas.
- A VALUE** = Use the HLOOKUP function to calculate each commodity value according to YEAR. Use the table at the bottom as a reference.  (2)
- B TARIFF** = Calculate the 25% charged by government on the value of every commodity. Use an absolute cell reference (2)
- C DUTY STATUS** = Given that only commodities with a value of R500 000 or more are charged duty, use the IF function to determine whether a commodity attracts duty or not. The word 'YES' must appear next to those commodities that attract duty and 'NO' must appear next to commodities that do not attract duty. (2)
- D DUTY** = Use the IF function to calculate the duty amount each commodity will pay. If the commodity qualifies for duty, it is calculated at 35% of the commodity value. (2)
- E TOTAL SPEND ON IMPORTATION** = Calculate the total for the Value, Tariff and Duty columns. Do not use the addition sign (+) in your formula. (2)
- F TOTAL** = Calculate the total for each column.  (2)
- G NUMBER OF COMMODITY TYPES** = Use the appropriate formula to determine the number of commodity types imported. (2)
- 5.2.5 Sort the data in numerical order according to the Year column. (1)
- 5.2.6 Insert horizontal and vertical lines, using the method you are familiar with. (2)
- 5.2.7 Insert a double line underneath 25%. (1)
- 5.2.8  Display all figures that represent money with an R sign and 2 decimal places. All other figures must be displayed as integers. (3)
- 5.2.9 Right align all answers calculated in **A–G** and change them to bold. (2)
- 5.2.10 Make a PRINTOUT of the spreadsheet in LANDSCAPE without row and column headings or gridlines. The spreadsheet must fit onto one page. (2)

<u>AGRICULTURAL IMPORT</u>						
<i>From 2010-2015</i>						
Type of commodity	Year	Value	Tariff	Duty status	Duty	Total spend on importation
4x4 Tractors	2014	A	B	C	D	E
Seeds	2013	A	B	C	D	E
Chemicals	2012	A	B	C	D	E
Vehicles	2011	A	B	C	D	E
Spraying helicopters	2010	A	B	C	D	E
Other inputs	2015	A	B	C	D	E
TOTAL		F	F		F	F
NUMBER OF COMODITY TYPES:	G					
Tariff:	<u>25%</u>					
	2010	2011	2012	2013	2014	2015
VALUE	270000	340000	525000	723000	730000	810000

FIGURE 2

- 5.3 Retrieve the document called QUESTION 5.2 and immediately save it as QUESTION 5.3.
- 5.3.1 Display the formulas. (7)
- 5.3.2 Change the question number in the header to QUESTION 5.3. (1)
- 5.3.3 Adjust the column widths.  (1)
- 5.3.4 Save and print the document in LANDSCAPE with the row and column headings but without gridlines. The document must fit onto one A4 page. (3)
- 5.4 Retrieve the document you saved as QUESTION 5.2 and immediately save it as QUESTION 5.4.
- 5.4.1 Create a PIE CHART, comparing Total Spend on Importation. (3)
- 5.4.2 Insert the following information as the heading of your graph:
- Total Spend on Importation
EXAMINATION NUMBER
QUESTION 5.4
-  (3)
- 5.4.3 The legends must appear on the left-hand side of the pie chart. (1)

- 5.4.4 Data labels must end outside. (1)
- 5.4.5 Move the pie chart to a new sheet  (1)
- 5.4.6 Print the pie chart in LANDSCAPE on one page. (2)

[61]**QUESTION 6: WORD**

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

Importation of animals and animal products

In terms of the Animal Diseases Act (Act No. 35 of 1984) and the Meat Safety Act (Act No. 40 of 2000), citizens may import animals and/or animal products which are considered safe.

Imports must comply with the import requirements given on the veterinary import permit.

What are animal products? 


Animal products are made of, or contain, animal material. Examples are milk, cheese, meat, biltong, skins, furs, game trophies, animal feed containing animal material, vaccines, medicines made from animal material, and laboratory samples of animals.

Import requirements

Certain import requirements have to be met when you want to import animals and/or animal products into the country. These requirements are aimed at preventing the introduction of exotic (foreign) diseases into South Africa. This is done in order to protect the national animal (and human) population, as well as our export markets. For certain products, other government authorities have their own import requirements which must be complied with, for example, meat, which is also controlled by the Directorate of Veterinary Services and which will evaluate the slaughtering procedures and abattoirs of the exporting country.

Rules of importing

Each time you import animals and/or animal products you need:

- An original veterinary import permit issued by the National Directorate of Veterinary Services
- An original health certificate duly completed in English and in accordance with the requirements on the import permit and signed by the veterinary authority of the exporting country 

All conditions on the veterinary import permit must be met, and this is the responsibility of the importer.

How to apply for a veterinary import permit

- Fill in an application form.
- Obtain the correct application form from your local state veterinary office, an approved port of entry in South Africa or the National Directorate of Veterinary Services in Pretoria.
- A tariff is payable per permit for each consignment.
- The application must be submitted to the Pretoria office at least four to six weeks before the proposed import.



Illegal importation

Any animals and/or animal products imported into South Africa without an original veterinary import permit can be regarded as an illegal importation.



Approved ports of entry

Animals or animal products may only be imported at the following approved ports of entry:

Airports: OR Tambo International, Cape Town International or Durban International

Harbours: Cape Town, Durban or Port Elizabeth (only selected products)

Border posts with neighbouring countries: Namibia (Nakop and Vioolsdrif), Botswana (Ramatlabama), Zimbabwe (Beit Bridge), Swaziland (Golela and Oshoek) and Mozambique (Komatipoort/Lebombo)

- 6.1 Open the document called 'WORD DOCUMENT' mentioned on the previous page.
- 6.2 Immediately save it under the new name as QUESTION 6.
- 6.3 Make the following changes on the document:
 - 6.3.1 Change the heading 'Importation of animal products' to bold, upper case, underline and centre. Change the font type to Verdana, size 18 pt. (6)
 - 6.3.2 Change the third paragraph 'Certain import requirements ... the exporting country' as follows:
 - Indentation must be 5 cm/2' on both sides. 
 - Line spacing must be double.
 - The paragraph must be centred. (3)
 - 6.3.3 Change the word 'country' where it is standing alone, to bold and italics. (2)
 - 6.3.4 Change the left-hand margin of the entire document to 4 cm/1.58'. (1)
 - 6.3.5 Change the second paragraph 'What are animal products ... samples of animals' to become the last paragraph of the document. (2)
 - 6.3.6 Bold and underline all subheadings.  (2)

6.3.7 Change the text into two columns as explained below.

The first column must have the paragraph and subheading 'Rules of importing'. The second column must contain the paragraph with the subheading, 'How to apply for a veterinary import permit'. Change the paragraphs in the columns to full justification.

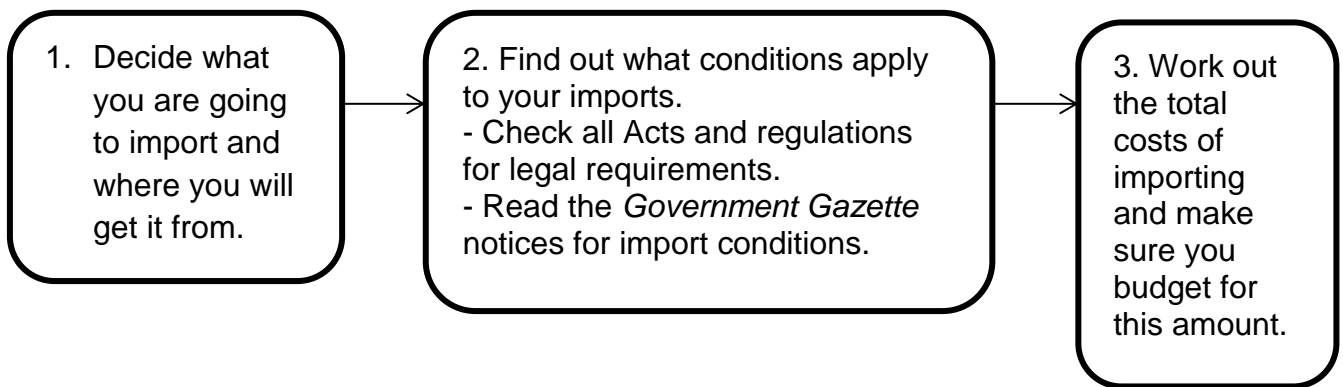


(3)

6.3.8 Insert the following shapes with text at the end of the second page as it is shown in the document. Insert numbering into the shapes. Apply a 2¹/₄ pt. weight shape outline. Change the term 'Government Gazette' to italics.

(4)

How to go about importing



6.3.9 Insert a page number at the bottom centre of all pages. (2)

6.4 Key in your EXAMINATION NUMBER left and QUESTION ... right in the header. (2)

6.5 Save the document and make a PRINTOUT. [27]



QUESTION 7: DATABASE

Create a database using the file name 'IMPORTATION'.

7.1 Create the following fields:

C:\Users\user\Desktop\2018 national EXAM\IMPORTATION.accdb 16 August 2018
 Table: IMPORTS Page: 1

Columns

Name	Type	Size
NO	Long Integer	4
COMMODITY	Text	20
YEAR	Long Integer	4
DATE PURCHASED	Date/Time	8
COST	Currency	8
ATTRACTS DUTY	Yes/No	1
EXAM NO	Long Integer	4
QUESTION 3	Text	10

- 7.2 Key in the following records and save the table as 'IMPORTS'.
Make a PRINTOUT of the table on A4 in LANDSCAPE. (10)

NO	COMMODITY	YEAR	DATE PURCHASED	COST	ATTRACTS D	EXAM NO	QUESTION 3
1	COMBINED HARVESTOR	2010	2010/03/22	R 750 000.00	<input checked="" type="checkbox"/>		
2	TRUCK	2011	2011/03/29	R 520 000.00	<input checked="" type="checkbox"/>		
3	MOTOR BIKES	2015	2015/02/06	R 20 000.00	<input type="checkbox"/>		
4	CHEMICALS	2017	2017/10/12	R 10 000.00	<input checked="" type="checkbox"/>		
5	ANIMALS	2016	2016/03/05	R 152 000.00	<input type="checkbox"/>		


- 7.3 Make a PRINTOUT of a structure of the table above. The PRINTOUT must be in PORTRAIT. (10)

- 7.4 Create a report using the following headings:

COMMODITY	YEAR	COST
-----------	------	------

 (2)

- 7.4.1 Only those commodities with a price of R100 000.00 or more must appear in the report. (1)

- 7.4.2 Sort the data in ascending order according to year.  (2)

- 7.4.3 The title of the report must be your 'EXAMINATION NUMBER QUE 7 REPORT'. (2)

- 7.4.4 The calculated TOTAL COST must appear underneath the last COST and the word TOTAL must appear underneath the last COMMODITY. (4)

- 7.4.5 Make a PRINTOUT of the report on an A4 page in PORTRAIT. (1)

[32]

TOTAL: SECTION B: 120
GRAND TOTAL: 200