higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

DATA MANAGEMENT: FARMING N4

(4090454)

16 November 2023 (X-paper)
09:00–12:00

This question paper consists of 14 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
DATA MANAGEMENT: FARMING N4
TIME: 3 HOURS
MARKS: 200

INSTRUCTIONS TO INVIGILATORS AND CANDIDATES

Read the following instructions carefully before attempting to answer the question paper. Invigilators will explain, if necessary.

1. The question paper comprises of two sections, namely:

   SECTION A: Theory (120 marks)

   SECTION B: Word processing/text manipulation, spreadsheet (80 marks)

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

   SECTION B should be done on computer with the aid of word processing and spreadsheet programs.

   Each PRINTOUT must have both the EXAMINATION NUMBER and the QUESTION NUMBER printed as a header. Handwritten EXAMINATION NUMBERS and QUESTION NUMBERS are not acceptable.

   The PRINTOUTS must be placed in the folder in the correct sequence. Candidates who use continuous paper must detach the pages from one another before handing them in.

2. The time allocated for the question paper is THREE hours.

3. No additional printing time is allowed.

4. 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.

5. 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 to redo such lost work. It is the candidate’s responsibility to protect his/her answers from being lost.

6. If there is a problem with certain printers, e.g. they do not print, a report should be sent together with your centre’s answer sheets.

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7. The spell checker may be used.

8. Each answer must be printed on ONE side of a separate sheet of paper only. PRINTOUTS must be placed in the EXAMINATION FOLDER immediately after printing.

9. Do not staple answer sheets together. Marks will be subtracted when printing was done on both sides of the paper and when PRINTOUTS sheets have been stapled together.

10. Only ONE PRINTOUT per question or subsection of a question may be handed in.

11. At the end of the examination session all PRINTOUTS to be marked, must be placed in the EXAMINATION FOLDER and handed to the invigilator together with those PRINTOUTS not to be marked. No PRINTOUTS whatsoever may be removed from the examination room or placed in the waste-paper bins. PRINTOUTS not submitted for marking must be collected at the end of each session and destroyed at the end of the day.

12. PRINTOUTS to be marked must be arranged in the same order as the questions in the examination paper. Marks will be subtracted for answer sheets not in the correct order.

13. PRINTOUTS may be made on A4 sheets of paper or on continuous computer paper unless a specified paper size is required in a question or a letterhead is supplied.

14. In order to print the original as well as the other attempts of the answers, candidates are reminded to save the work after completion of each section before it is printed.

15. At the end of the 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 enquires are made by the examiner/moderator and superintendents of examination.

    If no diskettes are available to save the answers, each candidate must create a folder on the computer he/she is working on and save all his/her work in that folder which is named using his/her EXAMINATION NUMBER. The invigilator will then save the folders on a USB and submit the USB to the examination office for safekeeping of ONE year.

16. Note that no paper may be taken from of the examination room, including question papers. All papers must be handed in. Question papers may be returned to the candidates at the end of the last session.

17. In the event of an examination paper being examined in more than one session, invigilators must ensure that all candidate answers are removed from the hard disks or the network before candidates for the next session are allowed into the room.

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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 (1.1–1.10) in the ANSWER BOOK.

1.1 The following is not system software:

A MS Word
B MS Windows
C Unix
D Microsoft NT

1.2 If a computer is switched on it may be necessary to reboot the computer when error messages appear on the screen while working in Windows.

A CTRL + SHIFT + DEL
B SHIFT + END +DEL
C CTRL + ALT + DEL
D CTRL + INSERT + DEL

1.3 The … is at the top of a structure and is created when a diskette or hard disks is formatted.

A subfolder
B folder
C root
D icon

1.4 The following is a valid filename in Windows.

A .doc
B Lo (o).9.doc
C Abc09$!.doc
D Microphone

1.5 The … memory contains data that cannot be changed.

A RAM
B Input
C ALU
D ROM

1.6 The CPU's processing speed is measured in …

A kilobyte
B megahertz
C gigabyte
D megabyte

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1.7 The following is not an example of an operating system:

A Unix
B Microsoft 2010/2016
C Microsoft NT
D Access

1.8 A … produces graphic output such as charts and architectural drawings.

A plotter
B printer
C light pen
D scanner

1.9 The … command deletes all data on an old diskette.

A move
B format
C copy
D rename

1.10 A … is the smallest unit in the binary system that can be 1 or 0.

A bit
B byte
C CPU
D ASCII

(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 (2.1–2.5) in the ANSWER BOOK.

2.1 The icons within the control panel can be used to check or change current settings, such as monitor display settings.

2.2 A graphical user interface displays windows, drop-down menus and icons that correspond to particular functions.

2.3 A screen/monitor and a printer as output devices – a screen/monitor is used to see what a computer is processing and a printer is used to produce a hard copy of the data/information.

2.4 When error messages appear on the screen while working in Windows it may be necessary to reboot the computer. The procedure is called cold boot.

2.5 The memory RAM constitutes the greater part of the total memory.

(5 × 1) **[5]**

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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	A multipurpose key on the keyboard	A	IT (information technology)
3.2	Refers to all aspects of managing and processing information by computers	B	system software
3.3	Stores data that is keyed in on the keyboard	C	virus wall
3.4	To detect and remove viruses over the internet	D	RAM
3.5	It activates the computer	E	modem
3.6	A program used for manipulation of figures	F	F1
3.7	Storage media	G	UPS
3.8	Demodulate/modulate	H	file
3.9	Protect the user against unexpected power failure	I	cold boot
3.10	Data are stored in this format	J	backup file
		K	hard disks
		L	spreadsheet

(10 × 1) **[10]**

QUESTION 4

Give ONE term for each of the following descriptions by writing it next to the question number (4.1–4.5) in the ANSWER BOOK.

4.1 Programs that are designed to allow a computer to manage its own resources.

4.2 A flat, round plastic disk on which data is stored magnetically.

4.3 The physical parts of the computer.

4.4 Produces characters by means of a mechanism that physically strikes the paper.

4.5 Peripherals that are used to send data to a computer.

(5 × 1) **[5]**

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QUESTION 5

Name the components indicated below by writing the answer next to the question number (5.1−5.5) in the ANSWER BOOK.

5.1

5.2

5.3

5.4

5.5

(5 × 2) **[10]**

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QUESTION 6

6.1 What is a computer virus? Explain in full. (4)

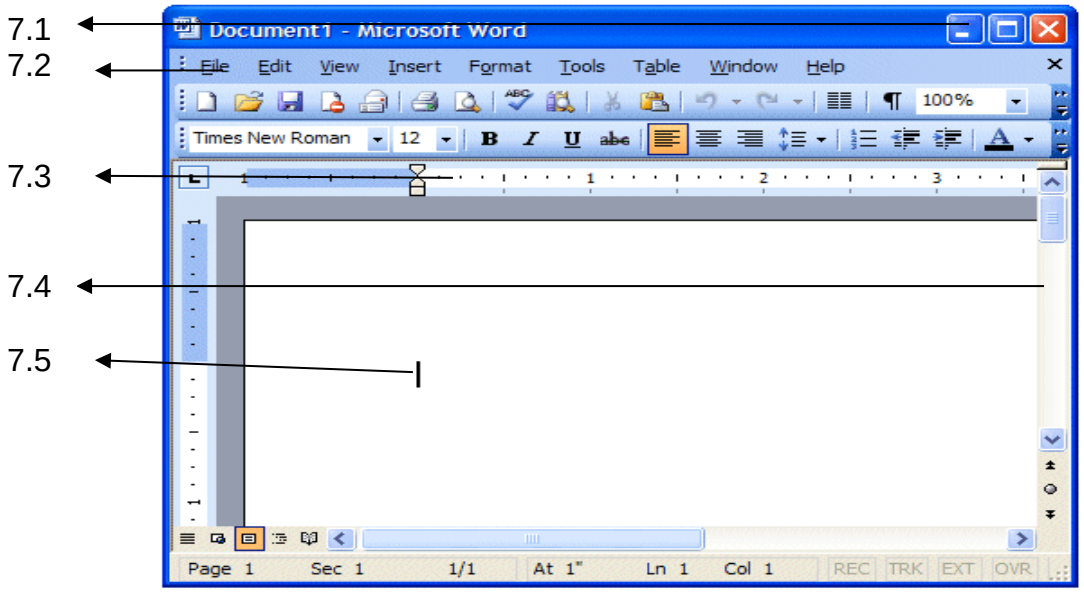
6.2 State SEVEN ways in which a computer system can be infected by a virus. (7 × 2) (14)

6.3 What can one do to protect one's computer system against viruses? (6 × 2) (12)

[30]

QUESTION 7

Name the numbered components in the window below by writing the answer next to the question number (7.1−7.5) in the ANSWER BOOK.



(5 × 2) **[10]**

QUESTION 8

8.1 Name FIVE important components of a computer that one may purchase for use in a farming enterprise. (5 × 2) (10)

8.2 Computers can be used in different fields in a farming enterprise.

Name FIVE fields where computers can be used on a farm. (5 × 2) (10)

8.3 Briefly explain FOUR functions of an operating system. (4 × 2) (8)

8.4 Name TWO kinds of printers. (2)

[30]

QUESTION 9

Define the following terminology regarding computers:

9.1 Central processing unit (CPU)

9.2 Copyright

9.3 Operating system

9.4 ALU

9.5 Desktop

(5 × 2) **[10]**

TOTAL SECTION A: 120

SECTION B: PRACTICAL

This section is done on computer. Use font type Arial 12 pt.

Your EXAMINATION NUMBER and the QUESTION NUMBER must appear as a header on each PRINTOUT.

The PRINTOUTS to be marked must be placed in your EXAMINATION FOLDER in the correct sequences.

QUESTION 10: WORD PROCESSING

1. Use a word processing program to create the document, "Hygiene", below.

2. Save the document as QUESTION 10.

Hygiene

Various germs cause numerous types of illnesses including the common cold and flu. When we cough, sneeze or talk, we release minute germ-filled droplets into the air. Anyone within a three-foot radius can inhale these droplets. Colds and flu are spread this way.

According to Dr W. Kumalo, the first defence against sickness and the spreading of germs is to wash one's hands correctly.

Use warm, running water and antibacterial soap. Lather well, rubbing your soapy hands together for at least 20 seconds.

Prevention of cold and flu.

1. Wash your hands.
2. Avoid crowds and sick people.
3. Disinfect surfaces.
4. Stay warm and dry.
5. Boost the immune system to beat colds and flus.
6. Reduce stress.
7. Stop smoking.
8. Exercise regularly.

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Execute the following instructions:

1. Open the document that you saved as QUESTION 10.

2. Immediately save it under a new name as QUESTION 10 A.

3. Make the following changes in QUESTION 10 A:

3.1 Change the main heading (Hygiene) to upper case, bold, underlined, centred. Change the font to Comic Sans 20 pt. (6)

3.2 Change the left- and right-hand margins of the entire document to 1.5 cm/1.59". (2)

3.3 Find the word 'droplets' where it stands alone throughout the document and change it to bold and italics. (2)

3.4 Number the paragraph as indicated below. The number and full stop must appear in the left-hand margin as indicated. Indent the paragraph underneath the first letter of the paragraph. (6)

1. Wash your hands.

2. Avoid crowds and sick people.

3. Disinfect surfaces.

4. Stay warm and dry.

5. Boost the immune system to beat colds and flus.

6. Reduce stress.

7. Stop smoking.

8. Exercise regularly.

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3.5 Change the text as indicated below into two columns. Fully justify the text. Insert a line in between the paragraphs. (5)

According to Dr W Kumalo, the first defence against sickness and the spreading of germs is to wash your hands correctly.

Use warm, running water and antibacterial soap. Lather well, rubbing your soapy hands together for at least 20 seconds.

3.6 Change the subheading to strikethrough and bold "~~**Prevention of Cold and Flu.:**~~" (2)

3.7 Insert a page number in the bottom right-hand side of the whole document. (3)

3.8 As a header, key in your EXAMINATION NUMBER left-aligned and the QUESTION NUMBER right-aligned. (3)

3.9 Save and make a PRINTOUT of the documents. Place the PRINTOUTS in your EXAMINATION FOLDER. (1)

[30]

QUESTION 11: SPREADSHEET

QUESTION 11A

1. Create the following document in a spreadsheet program. Use the exact cell references as indicated below. You will be penalised should you use incorrect cells. (3)

	A	B	C	D	E
1	Olive Farming Enterprise				
2					
3	Cash Flow Statement: 2019				
4		JUNE	JULY	AUGUST	TOTAL
5					
6	Opening Balance	5800	10500	17700	
7					
8	Income	16000	18500	19300	
9					
10	Expenditure	12300	14200	15400	
11					
12	Surplus				
13					
14	AVERAGE TOTAL:				
15	HIGHEST TOTAL:				
16	LOWEST TOTAL:				

2. Use font type Arial 12 pt. (2)

3. Adjust the column widths to fit all the data as indicated. (1)

4. As a header, key in your EXAMINATION NUMBER left-aligned and the QUESTION NUMBER right-aligned. (2)

5. Save the document as QUEST 11A.

6. Print the document on A4 portrait orientation without row and columns headings and gridlines. (2)

[10]

QUESTION 11B

1. Retrieve the document that you saved as QUEST 11A and immediately change the header to QUESTION 11B. (1)

	A	B	C	D	E
1	Olive Farming Enterprise				
2					
3	Cash Flow Statement: 2019				
4		JUNE	JULY	AUGUST	TOTAL
5					
6	Opening Balance	R5800.00	R10500.00	R17700.00	
7					
8	Income	R16000.00	R18500.00	R19300.00	
9					
10	Expenditure	R12300.00	R14200.00	R15400.00	B
11					
12	Surplus →				A
13					
14	AVERAGE TOTAL: →				C
15	HIGHEST TOTAL: →				D
16	LOWEST TOTAL: →				E

Edit the document, QUESTION 11B, as indicated below.

2. Merge and centre the main heading 'Olive Farming Enterprise' in range A1−I1. Change the font type to Comic Sans 20 pt in bold and underline. (4)

3. Change the subheading 'Cash Flow Statement: 2019' to italics and bold. (2)

4. Insert the text as indicated:

   AVERAGE TOTAL
   HIGHEST TOTAL
   LOWEST TOTAL (1)

5. Provide the formulae where the alphabet letters appear (A–E). Use the correct cell references.

   A. Surplus = Opening balance plus income less expenditure (5)
   B. Total = Total of opening balance, income, expenditure, surplus (4)
   C. Average = Total column (4)
   D. Highest = Total column (4)
   E. Lowest = Total column (4)

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6. Display all figures that represent amounts as currency with TWO decimals. All other figures that do not represent amounts must remain as integers. (3)

7. Use a method that you are familiar with to insert horizontal and vertical lines as indicated in the spreadsheet above. (2)

8. All figures must be right-aligned. (2)

9. Centre the column headings horizontally and vertically in bold. (2)

10. Make a PRINTOUT of the document with rows and column headings as well as gridlines on A4 landscape format. Place the PRINTOUT in your EXAMINATION FOLDER. (2)

[40]

TOTAL SECTION B: 80
GRAND TOTAL: 200

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