higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

DATA MANAGEMENT: FARMING N4

(4090454)

20 October 2020 (X-paper)
09:00–12:00

TURN THE PAGE FOR THE INSTRUCTIONS.
YOU HAVE 25 MINUTES TO READ THE INSTRUCTIONS.

This question paper consists of 12 pages.

270Q1B2020

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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 paper. Invigilators will explain, if necessary.

1. The question paper comprises two sections, namely:

   SECTION A: Theory (120 marks)
   SECTION B: Word Processing/Text Manipulation and Spreadsheets (80 marks)

   Section A must be answered in the ANSWER BOOK. The ANSWER BOOK must be placed on top of all the printouts in the yellow folder.

   Section B is done on the computer with the aid of the word processing, spreadsheet and database programs. Each printout must have both the EXAMINATION NUMBER and the question number printed either as header or footer (as per instruction). Handwritten EXAMINATION NUMBERS and question numbers are not acceptable.
   The printouts must be placed in the folder in the correct sequence. Candidates making use of continuous paper must tear the pages apart before handing in.

2. The time allocated for the question paper is 3 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. If there is a problem with certain printers, e.g. does not print ë, the invigilator must send a report with the centre's answer sheets.

6. A candidate may have in his/her possession a typing ruler, a dictionary and a list of ASCII codes. Spellcheck may be used.

7. Each answer must be printed on a separate sheet of paper and on one side of the paper only. Printouts must be placed in the examination folders immediately.

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8. 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.

9. At the conclusion of the examination session all printouts which a candidate wishes 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.

10. Printouts to be marked must be arranged in the same order as that of the questions in the examination paper. Marks will be subtracted for answer sheets not arranged into number order.

11. Printouts may be on A4 sheets of paper or on continuous computer paper; unless a specified size of paper is required in a question or a letterhead is supplied.

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 such lost work. It is the candidates' responsibility to protect their answers from obliteration.

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

14. 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 all their 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 Exam office for safekeeping (for ONE year).

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

17. NO candidate may print his/her work for another candidate, make his/her floppy disk/storage device available to another candidate or access other candidate's 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.

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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 … means illegally duplicating copyrighted software.

A Data Publicity Law
B Software Piracy
C Data Protection Act
D Copyright

1.2 The term hardware refers to …

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

1.3 Which of the following is not a type of pointing devices?

A Touch pad
B Optical Mouse
C Scanner
D Separate electronic mouse

1.4 ... virus is disguised in computer programs that seem legitimate; it cannot replicate itself and is harmful.

A The worm
B File
C Boot sector
D Trojan horse

1.5 Produce characters by means of a mechanism that strikes the paper physically.

A Ink-jet printers
B Thermal printers
C Impact printers
D Laser printers

1.6 Which of the following is not output device?

A Printer
B Monitor
C Stylus
D Speaker

1.7 Which ONE is the smallest unit of storage capacity?

A Byte
B Bit
C Gigabyte
D Megabyte

1.8 An example of an application program:

A MS DOS
B The Trojan horse
C MS Access
D All of the above.

1.9 How do you change the font for existing text within a document?

A Select the text, then choose the new font.
B Choose the new font, then select the text.
C Either (a) or (b)
D Neither (a) nor (b)

1.10 What is an operating system?

A Hardware
B Provides a series of utilities and commands that you can use to manage your files, folders and disks.
C Creates a link between the user and the computer hardware by providing an interface, or environment, in which you can communicate with the computer.
D Both (b) and (c)

(10 × 2) **[20]**

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. Correct the statement if it is FALSE.

2.1 Ctrl+H is highlighting the entire document.

2.2 Diskcopy works only with removable disks such as floppy disks, which must be of the same type.

2.3 ROM stand for Read Operating Memory.

2.4 GIGO is Garbage Internet Garbage Operating Systems.

2.5 Criminals in the ICT environment who are involved with fraudulent operations such as cracking passwords are called hackers.

(5 × 2) **[10]**

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QUESTION 3

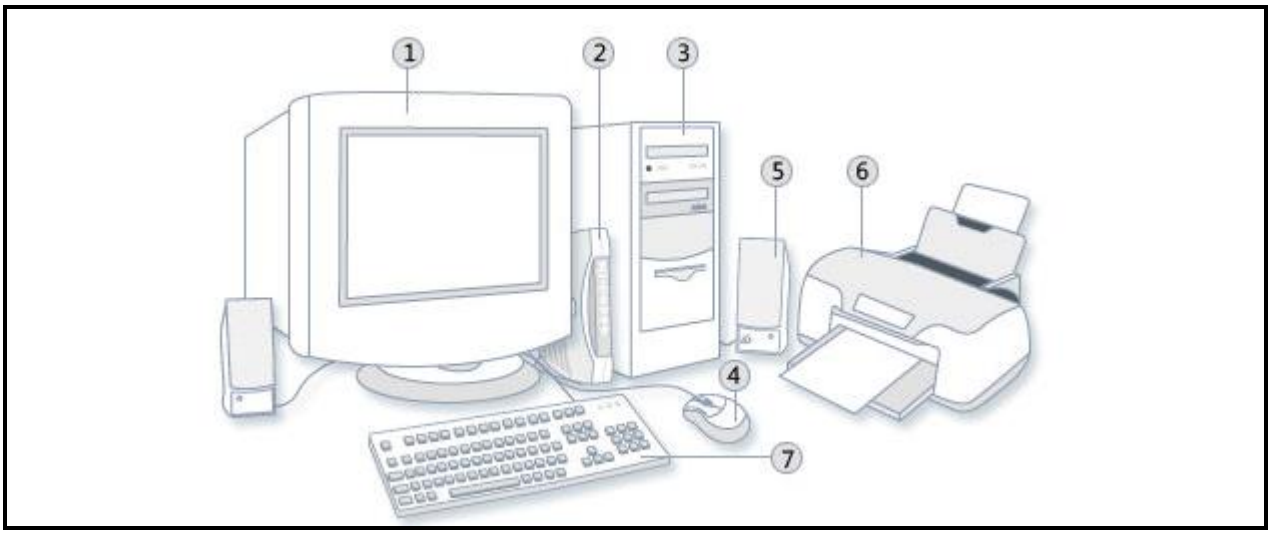
Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–L) next to the question number (3.1–3.8) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1	Magnetic device that is used as internal memory	A	unicode
3.2	International standard of which the goal is to extend the ASCII to a 16-bit code	B	binary
3.3	Peripheral with a lever, which can move in different directions	C	control unit
3.4	Changes the digital data from the computer into analog data that can be transferred by telephone line	D	ink-jet printer
3.5	Use a spray head that squirts drops of ink onto the paper to form characteristic signs	E	WLAN
3.6	Network that directly connects computers separated by long distance	F	speaker
3.7	Program which can delete files containing valuable data	G	joystick
3.8	Audio input device that records music and voice input into the computers user's computer	H	microphone
		I	virus
		J	WAN
		K	modem
		L	hard disk

(8 × 2) **[16]**

QUESTION 4

Study the picture below and supply the names of the hardware marked 1–7.



(7 × 2) **[14]**

QUESTION 5

5.1 A keyboard is divided into sections. Mention any FIVE sections of a keyboard. (5)

5.2 Explain briefly the difference between *operating systems* and *application software* and also give TWO examples of each. (10)

5.3 Explain how you activate Windows Explorer. (5)
[20]

QUESTION 6

6.1 Define what a *computer virus* is and give any THREE examples of a computer virus. (5)

6.2 List FIVE ways a computer user can use to protect a computer against a virus infection. (5)
[10]

QUESTION 7

Explain the function of the following componets.

7.1 Keyboard

7.2 Stylus

7.3 Mouse

7.4 Scanner

7.5 USB

7.6 Printer

7.7 Digital camera

7.8 Headphones

(8 × 2) **[16]**

QUESTION 8

8.1 Draw a schematic representation of the input, processing, storage and output of a personal computer. (10)

8.2 Describe the difference between *backup* and *diskcopy*. (4)
[14]

TOTAL SECTION A: 120

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SECTION B: PRACTICAL

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

Your EXAMINATION NUMBER as well as the QUESTION NUMBER must appear as a header on each printout.

The printouts you want to be marked must be placed in the cover/folder in the correct sequence.

WORD PROCESSING

QUESTION 9A

9.1 Open MS Word and **TYPE** the information below in QUESTION 9.2; insert your EXAMINATION NUMBER left and QUESTION NUMBER right as header.

EXAMINATION **NUMBER QUESTION 9A** (2)

9.2 Use Arial 12pt to type the following information. (2)

Win!

If you would like to join us on this exciting tour, just answer these three simple questions:

What is the strategic vision of the Milk Producers' Organisation?
The MPO's vision is based on what we call the three Ps - can you name all three?
When and where will the MPO National Congress take place this year?

HINT: All the answers can be found in this issue of The Dairy Mail.

Email your answer to the editor at dairyproduction@agriconnect.co.za by 30 November 2018.
The winner will be contacted telephonically by 12 December 2018 to confirm his or her availability to accept the prize. (4)

Win!!! *Win!!!* *Win!!!*

9.3 Save the document as QUEST 9A and make a printout and put it in your folder. (2)

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QUESTION 9B

9.4 Retrieve the document saved as QUEST 9A and change QUESTION 9A to QUESTION 9B in the header. (1)

9.5 Change the format of the main heading “Win!” to font size 20, Bold, centre and uppercase. (4)

9.6 Change the first paragraph by making it bold, uppercase and centre. (3)

9.7 Number the THREE questions in paragraph TWO. (2)

9.8 Change the paragraph 'Hint:…' to centre and Bold. (2)

9.9 Change the last paragraph to centre and Italics. (2)

9.10 Open the document saved as QUEST 9B, copy the information and paste it below the last paragraph before (Win!!! Win!!!). Then change the information to two columns separated by a line and number as indicated below. (6)

Terms and conditions

1. The competition is open to any South African dairy farmers that are paid–up members of the Milk Producers' Organisation.
2. The winner will be randomly drawn from all correct entries received.
3. The winner must be in possession of a valid passport and be able to obtain the necessary travel documentation.
4. The prize is not transferable.
5. The editor's decision is final and correspondence will be entered into.

SPREADSHEET

9.11 Save the document; make a printout and place it in your folder. **[30]**

QUESTION 10A

10.1 Create the following document in the spreadsheet program. Use the exact cell references as indicated.

	A	B	C	D	E
1	**MILK PRODUCER'S ORGANISATION**				
2					
3	***SALARY SHEET: OCTOBER 2018***				
4					
5	Tariff per hour:		49		
6					
7	Name	Hours worked	Gross Salary	PAYE	Net Salary
8					
9	Monyane P	45			
10	Pandor N	50			
11	Nanny P	60			
12	Dingane T	55			
13	Rahula J	48			
14	Modise W	42			
15	Hlezi W	40			
16	Average hours worked				
17	Number of employees				

(5)

10.2 Insert your EXAMINATION NUMBER and QUESTION 10A on the right-hand side as a header. (2)

10.3 Adjust the columns to fit all the data as indicated. (2)

10.4 Save the document as QUEST 10A.

10.5 Print the document on A4 portrait with row and column headings without the gridlines. (3)

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QUESTION 10B

10.6 Retrieve the document QUEST 10A and immediately save it as QUEST 10B. Also change QUESTION 10A to 10B

	A	B	C	D	E
1	**MILK PRODUCER'S ORGANISATION**				
2					
3	***SALARY SHEET: OCTOBER 2018***				
4					
5	Tariff per hour:		49		
6					
7	**Name**	**Hours worked**	**Gross Salary**	**PAYE**	**Net Salary**
8					
9	Monyane P	45	**A**	**B**	**C**
10	Pandor N	50			
11	Nanny P	60			
12	Dingane T	55			
13	Rahula J	48			
14	Modise W	42			
15	Hlezi W	40			
16	**TOTAL**		**D**	→	
17	**Average hours worked**	**E**			
18	**Number of employees**	**F**			

(1)

10.7 Merge and centre cell range A1 – E1 and change the font to Broadway, size to 16pt. (4)

10.8 Merge and centre cell range A3 – E3 and also format the text to Algerian, size 14pt. (2)

10.9 Format the column headings to bold. (2)

10.10 Insert a row for TOTAL as indicated. (2)

10.11 Make Bold all the information in row 16 to row 18. (2)

10.12 Provide the formulae and/or function for cells marked with a letter of the alphabet. Use cell references and absolute addresses where applicable. Copy the formulae as indicated to complete the spreadsheet.

A Gross Salary = Hours worked multiply by tariff per hour

B PAYE = Gross Salary multiply by 22%

C Net Salary = Gross Salary minus PAYE

D Calculate the total as indicated.

E Use the correct function to calculate the average hours worked.

F Use the correct function to calculate the total number of employees.

(6 × 2) (12)

10.13 Display all figures that represent money with a R sign and 2 decimal places. (2)

10.14 Sort all the information alphabetically according to name. (2)

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

QUESTION 10C

10.16 Retrieve the document QUESTION 10B and immediately save it as QUESTION 10C.

10.17 Display the formulae. (5)

10.18 Change the question number in the header to QUESTION 10C. (1)

10.19 Adjust the column widths. (1)

10.20 Save and print the document in landscape without the row and column headings and gridlines. The document must fit onto one A4 page. (1)

[50]

TOTAL SECTION B: 80
GRAND TOTAL: 200

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