higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

INTRODUCTORY COMPUTER PRACTICE N4

(6030134)

25 May 2021 (X-paper)
09:00–12:00

INSTRUCTIONS AND QUESTION PAPER TO BE HANDED OUT TO INVIGILATORS AND CANDIDATES 30 MINUTES BEFORE COMMENCEMENT OF EXAMINATION.

This question paper consists of 15 pages and an answer sheet of 3 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
INTRODUCTORY COMPUTER PRACTICE N4
TIME: 3 HOURS
MARKS: 180

INSTRUCTIONS TO INVIGILATORS AND CANDIDATES

Read the following instructions carefully before answering the paper. Invigilators will explain, if necessary.

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

   SECTION A: Theory (60 marks)
   SECTION B: Word processing (60 marks)
   SECTION C: Spreadsheets (60 marks)

   SECTION A is done on the ANSWER SHEET provided. Approximately 1 hour must be spent on SECTION A.

   SECTION B is done on the computer with the aid of a word processing program. Approximately 1 hour must be spent on SECTION B.

   SECTION C is done on the computer with the aid of a spreadsheet program. Approximately 1 hour must be spent on SECTION C.

2. Answer all the questions.

3. Read all the questions carefully.

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, a report must be submitted with the centre's PRINTOUTS.

6. A candidate may have a list of ASCII codes with him/her. The spell checker 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 FOLDER immediately.

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8. 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 will be allowed to redo such lost work. It is the candidates' responsibility to protect their answers.

9. In SECTION B only Courier New 12 pt may be used. In SECTION C Courier New 12 pt, Calibri 11 pt or Arial 10 pt may be used. In SECTION B margins of 2,54 cm/1" should be used unless indicated differently.

10. The QUESTION NUMBER as well as your EXAMINATION NUMBER must be keyed in for each question as indicated in the instructions. Answers without a printed EXAMINATION NUMBER/WATERMARK will not be marked.

11. In order to print the original as well as the edited versions of the answers, candidates are reminded to save the work after each separate section before printing.

12. At the end of the examination session a candidate must hand in the PRINTOUTS of the answers as well as a USB/disk with the answers (properly marked with the candidate's EXAMINATION NUMBER). If a network is used, IT support must make a backup copy of all the candidates' work under the supervision of the invigilator. These disks and/or backup disks must be handed to the examination section for safekeeping for SIX months in case DHET should make enquiries.

13. Please note that no question paper may be removed from the examination room before ONE hour after the start of the last session. All question papers should therefore be handed in and can be handed back to candidates after the session.

14. In the event of any paper being examined at a centre in more than one session, invigilators must ensure that all answers are removed from the hard drive or the network before candidates for the next session are allowed into the examination room.

15. No candidate may print his/her work for another candidate, make his/her disk 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 viewed in a very serious light.

DO NOT TURN THE PAGE BEFORE THE INVIGILATOR INSTRUCTS YOU TO DO SO

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SECTION A: THEORY

Answer SECTION A on the attached ANSWER SHEET.

Approximately 60 minutes should be spent on this section.

QUESTION 1 10 minutes

The process of input, processing, storage and output also occurs in electronic devices. Indicate in each of the following cases whether the phrase or definition refers to input, output, processing or storage by writing the answer next to the question number (1.1–1.10) on the attached ANSWER SHEET.

1.1 Key in an SMS message on your cell phone.

1.2 The letters that appear on the screen of your cell phone while you are keying in a message.

1.3 The movie on a DVD.

1.4 Pressing the 'change channel' button on the remote control.

1.5 The sound of your house alarm going off.

1.6 The songs on your MP3.

1.7 Moving the computer's joystick when playing a computer game.

1.8 The movie that plays on the screen from your DVD player.

1.9 The 'Error' or 'Beep' sound that your computer makes when you make a mistake.

1.10 The contacts on your cell phone.

(10 × 1) **[10]**

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QUESTION 2 **10 minutes**

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (2.1–2.10) on the attached ANSWER SHEET.

2.1 Facebook is an example of a well-known social network in the world.

2.2 A computer network is a group of computers that use a set of common communication protocols over digital interconnections for the purpose of sharing resources located on or provided by the network nodes.

2.3 LAN stands for Low Area Network.

2.4 Efficient network bridges are also known as routers.

2.5 Personal computers can be considered the most vulnerable component on a local area network because it usually has weak security features.

2.6 Modems translate data from a digital form into an analogue signal.

2.7 A smartphone will work without using cell phone network technology to send and receive data.

2.8 A router shares the internet connection among multiple devices.

2.9 A microwave is a high-frequency signal sent through the air.

2.10 WAN links the computers by cables within an office or office block.

(10 × 1) **[10]**

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QUESTION 3 **10 minutes**

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 (3.1–3.10) on the attached ANSWER SHEET.

3.1 … is the approach we take when solving a problem by decomposing it into smaller parts, recognising similarities, abstracting and creating algorithms.

A Pattern
B Problem domain
C Algorithms
D Computational thinking

3.2 … are sequences or repetition in things or events that we can compare with one another.

A Abstraction
B Decomposition
C Trends
D Patterns

3.3 A/An … is a set of steps, instructions or rules that a human or computer should follow in performing a task, such as doing a calculation or solving a problem.

A pattern
B problem domain
C algorithm
D computational thinking

3.4 Which one of the following is NOT the cornerstones to computational thinking?

A Pattern
B Information
C Problem domain
D Algorithms

3.5 The buying and selling of goods over the internet.

A E-waste
B E-filing
C E-commerce
D Eco-friendly

3.6 Which one of the following is NOT a problem-solving technique?

A Take action
B Take note
C Understand the problem
D Do abstraction and pattern recognition

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3.7 Breaking down processes, complex problems or systems into smaller, manageable parts.

A Range
B Data
C Abstraction
D Decomposition

3.8 It is the collection of data organised and processed so that it has additional value beyond the value of the individual facts.

A Knowledge
B Information
C Process
D Decisions

3.9 Including too many small details and notes in one's planning, or trying to fix several problems at the same time.

A Workload
B Overload
C Overkill
D Distraction

3.10 A/An… is a factor that is likely to change.

A finding
B prediction
C variable
D observation

(10 × 2) **[20]**

QUESTION 4 **30 minutes**

4.1 Define the term, *connectivity*. (1)

4.2 List FIVE examples of web browsers. (10)

4.3 Give THREE disadvantages of purchasing goods and services online. (3)

4.4 Differentiate between *copyright* and *plagiarism*. (4)

4.5 Explain how cybercriminals operate. (2)
[20]

TOTAL SECTION A: 60

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SECTION B: WORD PROCESSING

Use a word processing program to answer the following questions. Approximately 60 minutes should be spent on this section.

QUESTION 5 **25 minutes**

This question has already been keyed in and saved on your data diskette. Please do not re-type or print this document.

QUESTION 5B

You are requested to do the following:

1. Retrieve the document Q5A from your data diskette.

2. Edit the header by changing the QUESTION NUMBER to Q5B and insert your EXAMINATION NUMBER (only the number) on the left-hand side of the header.

3. Change the left- and right-hand margins of the document to 2,54 cm/1".

4. Change the left- and right-hand margins of the paragraph indicated in the text to 5,08 cm/2".

5. Justify the entire document, unless instructed differently.

6. Edit the document according to the proofreading signs as indicated in the text.

7. Save the document as Q5B**.**

8. Make a PRINTOUT of the document and place it in your EXAMINATION FOLDER. Candidates will be penalised if more than ONE PRINTOUT is handed in. Only the top PRINTOUT will be marked.

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QUESTION 5B (CONTINUED)

ʌ The importance of currency **uc, bold, underline, centre**

ǂ

"Currency" is a term that will be familiar to ~~almost~~ ~~nearly~~ everybody. For our purposes, think of a time thousands of years ago in which traders exchanged material goods – such as grain for meat. **stet**

This bartering system soon had to evolve, given that organic goods spoil and their value decreases quickly rather. The need for something of value that lasts longer than food gave rise to the use of precious metals (coins). The coins changed hands until eventually, there were more coins being exchanged than there were actual goods to trade. So, money over time evolved into what we call "fiat" currency. [Fiat currency is a note from a bank that promises to pay the bearer of the note; it has no intrinsic value – you can't eat it or use it as building materials for shelter. Central banks and governments agree that these are worth something a consumer can exchange the notes for goods and services instead of bartering – i.e. exchanging goods for goods. **trs** **NP** **italics**

---------- **page break** ----------

Basically, fiat currency requires central bank and government regulation as to the value ~~– and the debt –~~ attached to the money, but it also requires that consumers agree that the money has value. This system requires faith in a centralised banking system, regulated by the government, to set, control and verify value transactions.

ǂ

NOTE:
*** Change the left- and right-hand margins of this paragraph ONLY to 5,08 cm/2".**
*** Change line spacing of this paragraph to d/s.**

ʌ Just like goods turned into metals and metals to cash notes, today's fiat currency exists not in the physical realm, but as digits in a set of secured, centralised, electronic servers that know exactly who is doing what transactions. **u/line**

ǂ

*** Copy the main heading of the document here**

[30]

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QUESTION 6 **35 minutes**

1. Key in the following document as it appears on the next page.

2. Insert a header with your EXAMINATION NUMBER left-aligned and Q6 right-aligned.

3. The left-hand margin of the document must be 3,81 cm/1,5".

4. Save the document as Q6.

5. Make a PRINTOUT of the document and place it in your EXAMINATION FOLDER.

6. Candidates will be penalised if more than ONE printout is handed in. Only the top PRINTOUT will be marked.

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QUESTION 6B (CONTINUED)

BANK OF SOUTH AFRICA **bold, italics, centre**

align

P.O. Box 501
Johannesburg **uc**
0001

‡
25 May 2021
‡
Dear Client
‡
Bitcoin currency **sp caps, bold**
‡
In the past few months, we have received many queries regarding the cryptocurrency known as Bitcoin.
‡ ~~circular~~
In our previous ~~newsletter~~ we explained what a fiat currency is. Cryptocurrencies are the logical next step in the evolution of fiat money. Cryptocurrencies are electronic capital used to make secure transactions. **stet**
‡
Probably the most well-known cryptocurrency is Bitcoin. **italics**
‡
The following are some of its main advantages: **u/line**
‡
This decentralises the ownership of the data.
A decentralised currency is one that no bank or government can control.
If a nation is suddenly thrown into a state of emergency, the government or central bank could freeze assets – preventing citizens from accessing their money.
‡

*** Insert bullets**
*** Leave TWO letter spaces after bullets and indent**

For any further enquiries contact us on 0860 001 002 or bitcoin@bankofsa.co.za. **italics, centre**
‡
Regards
‡
‡
M.B. Mkwevu
Director **uc, bold**

[30]

TOTAL SECTION B: 60

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SECTION C: SPREADSHEET

Use a spreadsheet program to answer the following questions. Approximately 60 minutes should be spent on this section.

Answer all the questions. Use Courier New 12 pt, Calibri 11 pt or Arial 10 pt.

Prepare the following spreadsheet.

QUESTION 7A **12 minutes**

1. Key in the spreadsheet as it appears below.
2. Insert a header with your EXAMINATION NUMBER (only the number) left-aligned and Q7A right-aligned.
3. Change the column widths where necessary to ensure that the spreadsheet fits on ONE A4 portrait page. Do not use the *Fit to page* option.
4. Save the spreadsheet as Q7A.
5. Make a PRINTOUT of the spreadsheet and place it in your EXAMINATION FOLDER. Candidates will be penalised if more than ONE PRINTOUT is handed in. Only the top PRINTOUT will be marked.

Name	Number of shares bought	Price per share	Amount owing
B Bukelwe	20	55	
J Motaung	160	33	
M Maritz	30	55	
JM Peters	50	33	
MP Ralitsela	120	33	
N van Wyk	150	55	

(15)

QUESTION 7B **40 minutes**

1. Retrieve the spreadsheet Q7A from your data diskette.

2. Change the QUESTION NUMBER to Q7B in the header.

3. Edit the spreadsheet according to the proofreading signs in the text.

4. Provide formulas for the following:

   A NUMBER OF SHARES BOUGHT multiplied by PRICE PER SHARE

   B SUM OF ALL AMOUNTS OWING

   C HIGHEST NUMBER OF SHARES

   D NUMBER OF INVESTORS

5. Insert horizontal borders as indicated using the method that you are familiar with.

6. Change column widths where necessary to ensure that the entire spreadsheet fits on ONE A4 landscape page. Do not use the *Fit to Page* option.

7. Save the spreadsheet as Q7B.

8. Make a PRINTOUT of the spreadsheet and place it in your EXAMINATION FOLDER. Candidates will be penalised if more than ONE PRINTOUT is handed in. Only the top PRINTOUT will be marked.

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QUESTION 7B (CONTINUED)

↑ column C Ultra Investments [uc, italics, underline]

insert open row

↑ Investment schedule for June 2021 [bold]

insert open row ↑ column

Name ↑ of ↑ investor	Number of shares bought	Type of share	Price per share	Amount owing
B Bukelwe	20	Money market	55	**A**
J Motaung	160	Industrial fund	33	
M Maritz	30	Money market	55	
JM Peters	50	Industrial fund	33	
MP Ralitsela	120	Industrial fund	33	
N van Wyk	150	Money market	55	
↑ TOTAL AMOUNT OWING				**B**
↑ HIGHEST NUMBER OF SHARES	**C**			
↑ NUMBER OF INVESTORS		**D**		

[bold] [left-align] [italics]

(38)

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QUESTION 7C **8 minutes**

1. Retrieve the document Q7B.

2. Change the QUESTION NUMBER to Q7C in the header.

3. Display the formulas.

4. Adapt the column widths where necessary to ensure that the entire spreadsheet fits on ONE A4 landscape page. Do not use the Fit to Page option.

5. Save the spreadsheet as Q7C.

6. Make a PRINTOUT of the spreadsheet and place it in your EXAMINATION FOLDER. Candidates will be penalised if more than ONE PRINTOUT is handed in. Only the top PRINTOUT will be marked.

(7)
[60]

TOTAL SECTION C: 60
GRAND TOTAL: 180

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INTRODUCTORY COMPUTER PRACTICE N4

ANSWER SHEET

EXAMINATION NUMBER: | | | | | | | | | | | | | |

SECTION A: QUESTION 1

1.1 _____

1.2 _____

1.3 _____

1.4 _____

1.5 _____

1.6 _____

1.7 _____

1.8 _____

1.9 _____

1.10 _____

(10 × 1) **[10]**

QUESTION 2

2.1 _____

2.2 _____

2.3 _____

2.4 _____

2.5 _____

2.6 _____

2.7 _____

2.9 _____

2.10 _____

(10 × 1) **[10]**

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QUESTION 3

3.1

3.2

3.3

3.4

3.5

3.6

3.7

3.8

3.9

3.10

(10 × 2) **[20]**

QUESTION 4

4.1

(1)

4.2

(10)

4.3

(3)

4.4 _____

_____

_____

_____ (4)

4.5 _____

_____

_____ (2)

[20]

TOTAL SECTION A: 60

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