higher education & training

Department:
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REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

COMPUTER PRINCIPLES N4

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
COMPUTER PRINCIPLES N4
TIME: 3 HOURS
MARKS: 100

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. Use only a black or blue pen.
5. Write neatly and legibly.

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QUESTION 1

Various options are given as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Users can enter data into a system with a/an … device.

A output
B storage
C input
D Bluetooth

1.2 A computer stores data and temporary instructions in … to process a task.

A random access memory
B read-only memory
C capacitors
D high-density discs

1.3 A number system that has a base of two and uses 1 and 0 as digits:

A Analog
B Digital
C Binary
D Gate

1.4 A storage device used for making backups:

A UPS
B External hard drive
C Hard copy
D Soft copy

1.5 Output devices allow computers to communicate with human beings through using items such as a …

A keyboard.
B joystick.
C mouse.
D monitor.

1.6 The technique of systematically identifying, isolating, and correcting a fault in a system.

A Programming logic
B Integrated circuit
C Troubleshooting
D Microchip

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1.7 A … is a non-impact printer.

A laser printer
B dot matrix printer
C chain printer
D drum printer

1.8 The raw facts stored in a file is referred to as …

A intelligence.
B information.
C knowledge.
D data.

1.9 A word processor is an example of a/an …

A browser.
B system software.
C application software.
D utility software.

1.10 Common input devices include a keyboard and …

A printer.
B mouse.
C speaker.
D monitor.

(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 (2.1–2.6) in the ANSWER BOOK.

2.1 A modem is a page created in PowerPoint.

2.2 Web documents are written in HTML.

2.3 Performing disk defragmentation is an important maintenance task for hard drives.

2.4 A computer virus can spread through an infected e-mail attachment.

2.5 A supercomputer is a powerful computer that can process large amounts of data very quickly.

2.6 A flash drive is an example of an input device.

(6 × 1) **[6]**

QUESTION 3

3.1 List THREE permanent memory devices available on the market and include the acronym used for each. (6)

3.2 List FIVE timing units for storing data that are available for modern-day computer use. (5)

3.3 Information is stored on a magnetic disk in the form of magnetic dots.

Explain how this information on the disk can be retrieved and loaded into memory without any difficulty. (5)

[16]

QUESTION 4

What is the difference between an *impact printer* and a *non-impact printer*?

In the ANSWER BOOK, redraw and complete the following table about the differences between the two categories of printers.

IMPACT PRINTER	NON-IMPACT PRINTER

[10]

QUESTION 5

You are working as a computer technician at Excellency TVET college. A new printer has been purchased for one of the computer laboratories.

In SIX steps, explain in detail how one would install a printer and ensure that it functions correctly. (6 × 2) **[12]**

QUESTION 6

6.1 List EIGHT types of errors that occur during program testing and debugging. (8)

6.2 Differentiate between a *compiler* and an *interpreter.* (4)

[12]

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QUESTION 7

Buses play an important role in the architecture of microprocessors.

Discuss THREE bus architectures found in a microprocessor and refer to the type of communication allowed by each bus. **[12]**

QUESTION 8

Computer networks play an important role in all walks of life. The world-wide web is such a type of network.

8.1 List THREE other networks from the computer industry and give THREE characteristics of each network. (12)

NOTE: NOT network topologies.

8.2 What is the purpose of a modem in modern computers? (2)

[14]

QUESTION 9

Write BASIC programs for each of the following:



9.1 Voltage = I × R (4)

9.2 Resistance = R1 + R2 (4)

[8]

TOTAL: 100

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