higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T410**(E)**(A14)T

NATIONAL CERTIFICATE

COMPUTER PRINCIPLES N4

(6040034)

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09:00–12:00

This question paper consists of 5 pages.

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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. Sketches must be large, neat and fully labelled.
5. Write neatly and legibly.

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QUESTION 1

1.1 Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–P) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.1.1	Most powerful and most expensive computer	A	plotter
1.1.2	Component that supplies the computer with electricity	B	mainframe computer
1.1.3	Type of computer used in big hospitals and airline-reservation companies	C	laptop
1.1.4	Printer that draws graphs or pictures by moving a pen	D	megabyte
1.1.5	Originally developed to perform specific tasks such as engineering calculations	E	microcomputer
1.1.6	Computer storage equal to one billion bytes	F	hard drive
1.1.7	Small desktop-sized system that became widely used in recent years	G	peripheral
1.1.8	Portable computer	H	supercomputer
1.1.9	Heart of a computer system	I	megabyte
1.1.10	Also known as an input and output device	J	CPU
		K	minicomputer
		L	gigabyte
		M	power supply
		N	machine
		O	floppy disk
		P	terabyte

(10 × 1) (10)

1.2 Give TWO advantages of nonimpact printers. (2)

1.3 What does the acronym CD-RW stand for? (2)

1.4 What does the acronym ROM stand for? (1)

1.5 The description, COMPUTER PRINCIPLES, must be printed on a report form.

Write the complete BASIC statement. (2)

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1.6 Documentation plays a role in using and developing computer software.

What is the purpose of internal documentation when associated with a software programmer? (2)

1.7 Loops within a BASIC program enable the execution of a small program to be repeated several times.

Give the TWO instructions associated with BASIC loops. (2)

1.8 The stack is part of computer memory.

What is the stack used for? (2)

1.9 Interrupts play an important role in computer operations.

Name TWO types of software interrupts. (2)
[25]

QUESTION 2

2.1 Give FIVE advantages of modular program structures. (5 × 2) (10)

2.2 Explain how each of the following will affect the planning and design of computer rooms:

2.2.1 Dust (4)

2.2.2 Three-to-five-year plan for a computer room (2)

2.2.3 Computer-repair staff (4)

2.3 Give FIVE disadvantages of a programming aid like flowcharts. (5)
[25]

QUESTION 3

3.1 Name FOUR types of volatile computer memories. (4)

3.2 Give TWO advantages of nonvolatile computer memories. (2)

3.3 Computers are associated with corruption in industry.

Write a report to the college management on how corruption can be controlled or minimised in the college sector. The report must refer to the steps that management can take to minimise corruption when college computer systems are used. (5 × 2) (10)

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3.4 Computer networks play an important role in all walks of life. The World Wide Web is an example of a computer network.

Name THREE main types of computer networks (NOT network topologies) and give an explanation for each. (3 × 3) (9)

[25]

QUESTION 4

4.1 Differentiate between *computer peripheral devices* and *computer software*. (2 + 2) (4)

4.2 Programming languages such as BASIC still exist.

Name FOUR other programming languages. (4)

4.3 Rules are important when writing a program in a programming language.

Give reasons for specific rules that apply to the writing of a BASIC program. (7)

4.4 Write a BASIC program to determine the sum of the negative numbers in a list of 10 numbers. (10)

[25]

TOTAL: 100

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