higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

INTRODUCTION TO COMPUTERS
NQF LEVEL 2

(10040052)

2 March 2020 (Y-Paper)
13:00–16:00

This question paper consists of 5 pages.

161Q1S2002

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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. Start each section on a new page.
5. Sketches must be neat.
6. Calculations may not be used in QUESTION 1.
7. Write neatly and legibly.

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QUESTION 1

1.1 Write the truth table for the following Boolean expressions.

1.1.1 $\overline{A + B}$ (4)

1.1.2 $A + B$ (3)

1.1.3 $\overline{A}$ (2)

1.2 Draw a logic diagram for the Boolean expression determined in QUESTION 1.1.1. (3)

1.3 Draw the IEC symbol for AND gate.

1.4 Draw the logic symbol of NAND gate.

1.5 Explain what a *data bus* is.

(3 × 2) (6)
[18]

QUESTION 2

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (2.1–2.5) in the ANSWER BOOK.

2.1 RAM enables the computer to store data and programs.

2.2 Output devices allow the computer to communicate with human users, using items.

2.3 Computers need protocols to enable the communication and transfer of data between two endpoints.

2.4 ALU is a CPU component that obtains instructions from the memory and decodes and executes them.

2.5 A computer on a star topology network connects to a central hub, switch or router.

(5 × 1) **[5]**

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QUESTION 3

3.1 List FIVE examples of output devices. (5)

3.2 Explain the difference between a *bit* and *byte.* (2)

3.3 State TWO types of mouse used with personal computers. (2)

3.4 Explain THREE components of binary control systems. (3 × 2) (6)

3.5 Storage needs has driven the computer industry to provide cheaper more compact and versatile storage devices with greater capacity.

3.5.1 Name TWO examples of optical media storage. (2)

3.5.2 State the storage capacity of a modern DVD. (1)

3.5.3 What does LCD stand for? (1)

3.6 Name THREE types of network cables. (3)

3.7 Explain THREE types of network topologies. (3)

3.8 List THREE examples of anti-virus software. (3)

3.9 Give TWO extension cards. (2)

[30]

QUESTION 4

4.1 Explain TWO booting-up processes of computers. (4)

4.2 Name TWO video ports that connect video devices. (2)

4.3 Define the following terms.

4.3.1 Protocol

4.3.2 Routers

4.3.3 Modem

(3 × 2) (6)

4.4 A computer hard drive is commonly known as local disk. Which letter is assigned to the local disk? (1)

4.5 Write the acronym BIOS in full. (1)

4.6 A computer needs application software to execute tasks.

4.6.1 List THREE examples of application software. (3)

4.6.2 What is an extension for word processing applications? (1)

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4.7 Explain the purpose of the commonly used computer shortcuts keys.

4.7.1 CTRL + X

4.7.2 CTRL + V

(2 × 1) (2)
[20]

QUESTION 5

5.1 List FIVE printer-related problems. (5)

5.2 State which hardware tool is used for isolating hardware faults. (1)

5.3 What does WYSIWYG stand for? (1)

5.4 What is the shortcut key for creating a new Word document? (1)

5.5 State the differences between *soft space* and *hard space* applied Word documents. (2)

5.6 List THREE alignment positions in Word documents. (3)

5.7 Name FOUR areas of work in which spreadsheet applications would be useful. (4)
[17]

QUESTION 6

6.1 State the difference between a *web page* and *website.* (2)

6.2 List THREE search engines. (3)

6.3 What is an *ISP*? (1)

6.4 Name TWO components of a URL. (2)

6.5 Write the following acronyms in full:

6.5.1 WWW

6.5.2 POP

(2 × 1) (2)
[10]

TOTAL: 100

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