higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

INTRODUCTION TO COMPUTERS
NQF LEVEL 2

(10040052)

13 November 2024 (Y-paper)
13:00–16:00

This question paper consists of 5 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
INTRODUCTION TO COMPUTERS
NQF LEVEL 2
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

1.1 Most logic gates take in two or more inputs of binary values and produce one output with a value of '1' or '0'.

Differentiate between the terms *input* and *output*. (2 × 2) (4)

1.2 Explain the function of the following gate types.

1.2.1 OR

1.2.2 NAND

1.2.3 NOT

(3 × 2) (6)

1.3 Use your own words explain why computers use the binary system. (3 × 1) (3)

1.4 What is meant by the acronym LSB? (1)

1.5 Show by means of a drawing the difference between connected wire and not connected wire. (2 × 2) (4)

1.6 Draw the logic gate IEC symbol of the following Boolean expressions.

1.6.1 $Z = A \,.\, B$

1.6.2 $Z = \bar{A}$

1.6.3 $Z = A + B$

1.6.4 $Z = \overline{A.B}$

1.6.5 $Z = \overline{A + B}$

(5 × 1) (5)

1.7 Convert the following decimal expression below into the binary number system and perform the calculation in binary. Leave the answer in binary.

1.7.1 37_{10} (2 × 1) (2)

1.7.2 $72_{10} + 181_{10}$ (5 × 1) (5)

[30]

QUESTION 2

2.1 Explain the function of a motherboard in a computer. (5 × 1) (5)

2.2 List FIVE devices that are fitted to the motherboard. (5 × 1) (5)

2.3 Analogue computer and digital computer each have their own unique strengths and applications.

Draw up a table to differentiate between the analogue computer and digital compute under the following categories: Operation, Speed and Accuracy, Cost and Complexity. (3 + 3) (6)

2.4 Name THREE advantages of using a hybrid computer. (3 × 1) (3)

2.5 List FIVE things in the computer environment that you need to consider when setting up a PC. (5 × 1) (5)

2.6 What is meant by the acronym LPT? (1)

[25]

QUESTION 3

3.1 Use your own words to define the following terms:

3.1.1 User interface

3.1.2 A window

(2 × 2) (4)

3.2 Explain what is *desktop customisation*. (3 × 1) (3)

3.3 A way to customise your desktop is to drag-and-drop the icons to wherever you want to place them on the screen.

Briefly explain *drag-and-drop*. (3 × 1) (3)

3.4 One of the computer maintenance programmes is called disk clean-up. This program frees up disk space by searching for files that can safely be deleted.

List FIVE types of disk clean-up tasks that are performed when this program is selected. (5 × 1) (5)

3.5 Briefly explain what to do when your PC gives the following messages:

3.5.1 Error message: Invalid system disk

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3.5.2 Error message: This program has performed an illegal operation and will be shut down.

(2 × 2) (4)

3.6 Explain the difference between *bottleneck* and *stalling*. (2 × 2) (4)

3.7 Explain what you would do to fix a slow-running PC. (2 × 1) (2)
[25]

QUESTION 4

4.1 Unlike handwritten or typewritten documents, documents created by word processing can be revised without having to rewrite the entire document.

Briefly explain what a *word processor* is. (4 × 1) (4)

4.2 Explain what the Help tab does in MSWord. (2 x 1) (2)

4.3 Sum, Average, Max, Min are the basic predefined functions when applying a spreadsheet formula.

Explain what each function means. (4 × 1) (4)
[10]

QUESTION 5

5.1 Internet connections vary quite a lot regarding ways of connecting.

Name FOUR ways of connecting to the internet. (4 × 1) (4)

5.2 What is meant by the acronym *e-mail?* (1)

5.3 Give THREE disadvantages of using e-mail. (3 × 1) (3)

5.4 A slideshow is used for presenting your slides to your audience on a screen.

5.4.1 Which key do you press to view the slideshow? (1)

5.4.2 Which key do you press to start on the current slide? (1)
[10]

TOTAL: 100

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