higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

INTRODUCTION TO COMPUTERS
NQF LEVEL 2

(10040052)

8 November 2022 (Y-paper)
13:00–16:00

This question paper consists of 4 pages.

155Q1N2208

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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. Use only a black or blue pen.
5. Use only IEC standard logic gate symbols.
6. Write neatly and legibly.

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QUESTION 1

1.1 Explain the meaning of the following abbreviations:

1.1.1 MSB

1.1.2 LSB

(2 × 2) (4)

1.2 Make use of the NOT gate, AND gate and OR gate with IEC symbols to form the following output functions:

1.2.1 NAND function

1.2.2 NOR function

(2 × 2) (4)

1.3 Draw a logic gate diagram from the following Boolean expression:

$$\overline{\left[\left(\overline{A+C}\right)\overline{C}\ \overline{D}+E+\overline{FG}\right]H}+I=Z$$

(10 × 1) (10)

1.4 Name TWO types of logic circuits that can be used to build memory devices for computer systems. (2)

1.5 Convert the decimal expressions below into the binary number system and perform the calculation in binary. Leave the final answer in binary.

1.5.1 5_{10} - 11_{10} (5)

1.5.2 $11_{10} \times 9_{10}$ (5)

[30]

QUESTION 2

2.1 Briefly explain the components arithmetic logic unit (ALU), control unit (CU) and registers that make up the central processing unit. (3 × 2) (6)

2.2 Give an explanation for the following terms:

2.2.1 Full duplex

2.2.2 Parallel interface

2.2.3 Input device

2.2.4 WAN

2.2.5 Node

(5 × 2) (10)

2.3 Draw a diagram that will explain the fetch executive cycle. (9 × 1) (9)

[25]

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QUESTION 3

3.1	Explain the purpose of the recycle bin.		(2)
3.2	How would you compress data in Windows applications?	(4 × 1)	(4)
3.3	How would you end an application that is experiencing an error?	(3 × 1)	(3)
3.4	Explain the difference between a *toolbar* and a *start menu*.	(2 + 3)	(5)
3.5	Explain *permanent deleting*.		(2)
3.6	List THREE methods you can follow to customise a desktop.		(3)
3.7	Briefly explain what it means to *minimise*, *maximise,* and *resize* windows or objects when using Windows.	(3 × 2)	(6)

[25]

QUESTION 4

4.1 Complete the following table.

Indicate which features are basic and which are advanced. Give a description of each feature. Copy the table in your ANSWER BOOK.

Items	Features	Basic or Advanced	Description
1	WYSIWYG		
2	File management		
3	Copy text		

(6 × 1) (6)

4.2	Explain in your own words what a *drop-down menu* is.		(2)
4.3	What is the shortcut key you would use to print a Microsoft Word document?		(2)

[10]

QUESTION 5

5.1	Briefly explain *dial-up connection*.	(3 × 1)	(3)
5.2	Why would you use cable connections in an Internet network?	(3 × 1)	(3)
5.3	Briefly explain *3G.*	(3 × 1)	(3)
5.4	Give the full name for the abbreviation *ADSL*.		(1)

[10]

TOTAL: 100

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