higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

INTRODUCTION TO COMPUTERS
NQF LEVEL 2

(10040052)

13 November 2019 (X-Paper)
09:00–12:00

This question paper consists of 5 pages.

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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. Write neatly and legibly.

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QUESTION 1: No calculations may be used in this question.

1.1 The truth table for a logic circuit is given in below.

X	Y	Z
0	0	0
0	1	1
1	0	1
1	1	1

1.1.1 Write the Boolean expression for the output Z in terms of input X and Y. (2)

1.1.2 Sketch the IEC for the Boolean expression $\overline{A.B}$ (4)

1.2 Draw the gate circuit diagram for the following Boolean expression.

$\overline{X} + XYZ$ (6)

1.3 Write the binary number for hexadecimal number $C_{16.}$ (2)

1.4 Write the binary number for decimal number 27_{10}. (2)

[16]

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 A computer virus is a set of instructions that are stored in a file on a diskette.

2.2 Modem is a page created in PowerPoint.

2.3 Hardware tells the computer software what to do.

2.4 Network layer maintain control and flow over data as well as checking for errors and packet sequencing.

2.5 Web documents are written in HTML.

(5 × 1) **[5]**

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QUESTION 3

3.1 Name FIVE basic elements of an information system. (5)

3.2 Give TWO advantages of a digital computer. (2)

3.3 Describe TWO categories of software. (4)

3.4 List SIX uses of computers in the mechatronics department. (6)

3.5 Modern computers are regulated by their performance speed, processing power and portability.

3.5.1 State what a computer processor speed is measured by. (2)

3.5.2 What is a computer hard drive? (1)

3.6 Networks can be classified according to a wide variety of characteristics.

3.6.1 What is an *intranet*? (1)

3.6.2 List FOUR security protocols used for securing communication between computers on the network. (4)

3.7 Give THREE advantages of computer networking. (3)

3.8 Describe TWO ways to prevent virus infection. (2)

3.9 Describe TWO types of computer virus. (2)

[32]

QUESTION 4

4.1 Explain TWO types of files you would work with on a computer. (4)

4.2 State TWO reasons why security on computers is important. (2)

4.3 Define the following terms:

4.3.1 Firewall

4.3.2 Network switch

4.3.3 Proxy server

(3 × 2) (6)

4.4 Name FIVE tasks that are performed by disk cleanup on a computer. (5)

4.5 What is meant by *formatting a disk*? (1)

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4.6 Disk drives are the interface between you and data.

Name TWO disk drive related problems. (2)
[20]

QUESTION 5

5.1 Name FOUR common faults which may cause a printer not to work. (4)

5.2 State TWO basics of document setup in relation to the page parameters of a document. (2)

5.3 What is the shortcut key for creating a new document in MicrosoftWord? (1)

5.4 List FOUR document types you can create with MicrosoftWord. (4)

5.5 Describe the process of moving text in a Word document. (3)

5.6 Explain the following in relation to spreadsheet:

5.6.1 What is a *workbook*?

5.6.2 What is a *cell*?

5.6.3 What is the function of absolute cell reference used in formula?

(3 × 1) (3)
[17]

QUESTION 6

6.1 State the difference between a *search engine* and *web browser.* (2)

6.2 Name THREE types of website. (3)

6.3 Name TWO basic email functions. (2)

6.4 Write the following abbreviations out:

6.4.1 3G

6.4.2 IP

(2 × 1) (2)

6.5 What is *Microsoft PowerPoint*? (1)
[10]

TOTAL: 100

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