higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

# NATIONAL CERTIFICATE (VOCATIONAL)

## INTRODUCTION TO COMPUTERS
### NQF LEVEL 2

(10040052)

**1 March 2018 (X-Paper)**
**09:00–12:00**

**Calculators may be used.**

**This question paper consists of 7 pages.**

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**TIME: 3 HOURS**
**MARKS: 100**

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**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 neat.
5. Subsections of questions may NOT be separated.
6. Write neatly and legibly.

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## SECTION A

## QUESTION 1

1.1 Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 A fixed-function IC package containing four AND gates is an example of …

A MSI.
B SMT.
C SOIC.
D SSI.

1.1.2 The output of an AND gate is HIGH when …

A any input is HIGH.
B all input is HIGH.
C no input is HIGH.
D Both A and B

1.1.3 The device used to convert a binary number of a 7-segment display format is the …

A multiplexer.
B encoder.
C decoder.
D register.

1.1.4 An inverter …

A performs the NOT operation.
B changes a HIGH to a LOW.
C changes a LOW to a HIGH.
D does all of the abovementioned.

1.1.5 An example of a data storage device is …

A the logic gate.
B the flip-flop.
C the register.
D Both A and D

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1.1.6 Output devices allow the computer to communicate with human users using items such as a …

A keyboard.
B joystick.
C mouse.
D monitor.

1.1.7 Hybrid computers accept analogue signals, convert them to digital symbols and process them into …

A data form.
B information form.
C output form.
D None of the abovementioned

1.1.8 The technique of systematically identifying, isolating and correcting a fault in a system:

A Programming logic
B Integrated circuit
C Troubleshooting
D None of the abovementioned

1.1.9 The OSI layer is divided into seven layers.

Which ONE is NOT part of the layers?

A Network
B Data link
C Topology
D Presentation

1.1.10 When data is permanently removed from computer storage and is NOT recoverable, it is called …

A soft delete.
B trash.
C hard copy.
D hard delete.

(10 × 2) (20)

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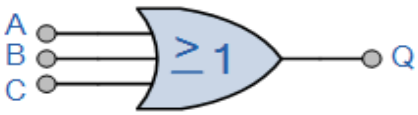
1.2 Study the Boolean symbol below and answer the questions.




3-input OR Gate

1.2.1 Write the Boolean expression for the 3-input OR gate. (3)

1.2.2 Draw a truth table for the Boolean expression in QUESTION 1.2.1. (8)

1.2.3 Analyse the Boolean expression Q = $\overline{A + B + C + D}$ and sketch the symbol of the expression. (5)

**[36]**

**TOTAL SECTION A: 36**

**SECTION B**

**QUESTION 2**

2.1 What does the term *computer literacy* mean? (1)

2.2 The printer is the most popular output peripheral that produces paper copies.

Name TWO types of printers. (2)

2.3 Name TWO categories of software. (2)

2.4 Give TWO examples of the categories of software in QUESTION 2.3. (4)

2.5 Name FOUR operations performed by a CPU. (4)

2.6 What is the function of a computer bus? (1)

2.7 List THREE types of computer buses. (3)

**[17]**

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## QUESTION 3

3.1 You want to access Windows Explorer on your computer.

Explain, in sequence, the procedure on how to access Windows Explorer on the computer. (3)

3.2 Briefly explain the impact that each of the following may have on a computer:

3.2.1 Compression

3.2.2 Disk defragmenter

(2 × 1) (2)

3.3 List any FIVE files that *disk clean-up* searches for on the hard drive to free up disk space. (5)

3.4 State FIVE commonly printer-related problems. (5)

3.5 Explain what is the meant by the term *firmware.* (2)

**[17]**

## QUESTION 4

4.1 Give TWO examples of computer anti-virus software. (2)

4.2 Name TWO common types of computer viruses. (2)

4.3 E-mail netiquette is the way to behave on electronic chat rooms and instant messaging.

Give FIVE e-mail netiquette guidelines to considerer when chatting online. (5)

4.4 State the purpose of the following computer applications:

4.4.1 Microsoft Excel

4.4.2 Microsoft PowerPoint

4.4.3 Microsoft Outlook

(3 × 2) (6)

**[15]**

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**QUESTION 5**

5.1 Explain what is the meant by the term *website.* (1)

5.2 List FOUR components of a URL and give an example of a URL. (4)

5.3 Draw a simple diagram to explain the relationship between web pages, websites and web servers. (6)

5.4 Explain what a *modem* is. (2)

5.5 Write out the following acronyms:

5.5.1 DSL

5.5.2 ADSL

(2 × 1) (2)
**[15]**

**TOTAL SECTION B: 64**
**GRAND TOTAL: 100**

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