higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

MULTIMEDIA SERVICE
NQF LEVEL 4

(10040184)

20 November 2018 (Y-Paper)
13:00–16:00

This question paper consists of 10 pages.

NCV

TIME: 3 HOURS
MARKS: 150

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. Write neatly and legibly.

NCV

SECTION A

QUESTION 1

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (1.1.1–1.1.15) in the ANSWER BOOK.

1.1.1 A communications protocol (protocol) is a set of rules that every computer follows to transfer information.

1.1.2 Integrity is not a primary goal of security.

1.1.3 A peer-to-peer network is the most complicated type of network.

1.1.4 Confidentiality is not a threat to business continuity.

1.1.5 Infrared is the newest form of wireless communications.

1.1.6 In a peer-to-peer network, all data and software are stored on a centralised server.

1.1.7 A repeater is a device that receives a radio signal, strengthens it, and sends it on.

1.1.8 Microwave is a type of radio transmission.

1.1.9 A virtual private network establishes a virtual Internet network that consists of you, your customers and suppliers.

1.1.10 Controls are mechanisms that reduce or eliminate threats to network security.

1.1.11 Intrusion refers to confidentiality and integrity of data.

1.1.12 A satellite is a type of wired communications media.

1.1.13 Corrective controls reveal or discover unwanted events.

1.1.14 The number of addresses in class C is smaller than the needs of most organisations.

1.1.15 A server in the client/server model must be more powerful and capable than a server in the file server model.

(15 × 1) (15)

1.2 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 (1.2.1–1.2.15) in the ANSWER BOOK.

1.2.1 The HTML tag ... produces the biggest heading.

A <h7>
B <h9>
C <h4>
D <h1>

1.2.2 ... sorts rows in SQL.

A SORT BY
B ALIGN BY
C ORDER BY
D GROUP BY

1.2.3 The benefits of a standard relational language include ...

A Reduced training costs
B Increased dependence on a single vendor
C Applications are not needed.
D Both B and C.

1.2.4 The five built-in functions provided by SQL are ...

A COUNT, SUM, AVG, MAX, MIN
B SUM, AVG, MIN, MAX, MULT
C SUM, AVG, MULT, DIV, MIN
D SUM, AVG, MIN, MAX, NAME

1.2.5 ….is the structure in which language must be used to be regarded as HTML.

A SEMANTICS
B SYNTAX
C TAGS
D FRAME

1.2.6 To remove duplicate rows from the results of an SQL SELECT statement, the … qualifier specified must be included.

A only
B unique
C distinct
D single

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1.2.7 The result of a SQL SELECT statement is a …

A report.
B form.
C file.
D table.

1.2.8 A/An ... tag is used to display a picture in an HTML page.

A picture
B image
C img
D src

1.2.9 ... is the correct order of keywords for SQL SELECT statements.

A SELECT, FROM, WHERE
B FROM, WHERE, SELECT
C WHERE, FROM, SELECT
D SELECT, WHERE, FROM

1.2.10 ... is the correct CSS syntax.

A body:color=black
B {body;color:black}
C {body:color=black(body}
D body {color: black}

1.2.11 The difference between margins and padding:

A Margins add white space inside the border and padding adds white space outside.
B Padding adds white space and margins increase the border size.
C There is no difference.
D Padding adds white space inside the border and margins add white space outside.

1.2.12 With ... you can add a row using SQL in a database.

A ADD
B CREATE
C INSERT
D MAKE

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1.2.13 ... is the command to remove rows from a table 'CUSTOMER':

A REMOVE FROM CUSTOMER ...
B DROP FROM CUSTOMER ...
C DELETE FROM CUSTOMER WHERE ...
D UPDATE FROM CUSTOMER ...

1.2.14 ... is the SQL WHERE clause.

A Limits the column data that are returned.
B Limits the row data are returned.
C Both A and B are correct.
D Neither A nor B are correct.

1.2.15 ... is the command to eliminate a table from a database.

A REMOVE TABLE CUSTOMER
B DROP TABLE CUSTOMER
C DELETE TABLE CUSTOMER
D UPDATE TABLE CUSTOMER

(15 × 1) (15)

1.3 Give ONE word or term for each of the following descriptions. Write only the word or term next to the question number (1.3.1–1.3.15) in the ANSWER BOOK.

1.3.1 A collection of dots that make up a monitor's display

1.3.2 A program that searches documents (i.e. web pages, which are HTML documents) for specified keywords and returns the list of documents

1.3.3 A software application that serves requests initiated by client programs

1.3.4 A program used to access and display HTML documents

1.3.5 …. take users to another webpage when they click on it

1.3.6 An element used for displaying information in rows and columns

1.3.7 The main page of an organisation or company which is the first page seen when the organisation's URL is visited

1.3.8 The process of scrambling a message so that a key, held only by authorised recipients, is needed to unscramble and read the message

1.3.9 Special computers that are set up on a network to prevent intruders from stealing or destroying confidential files

1.3.10 Main protocol upon which the Internet is based

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1.3.11 A text box, usually at the top of your browser window, which displays the address of the web page you're looking at, or which a web address can be typed into

1.3.12 It makes files smaller for faster upload/download times, and less disk space usage

1.3.13 The buying and selling of goods and services, and the transfer of funds, through digital communications

1.3.14 Any software that is distributed for free on the web

1.3.15 It allows you to copy or send files (HTML documents, graphic images, spreadsheets, etc.) from one computer to another via the Internet. A user ID and password are needed to use it.

(15 × 1) (15)

1.4 Give the full term for the following abbreviations. Write only the term next to the question number (1.4.1–1.4.5) in the ANSWER BOOK.

1.4.1 DoS

1.4.2 PIN

1.4.3 DDoS

1.4.4 IPS

1.4.5 IDS

(5 × 1) (5)
[50]

TOTAL SECTION A: [50]

SECTION B

QUESTION 2: NETWORKS AND SERVERS

2.1 Briefly explain why a network administrator would recommend the installation of a proxy server. (2)

2.2 Tabulate any THREE differences between *domains* and *workgroups*. (3 × 2) (6)

2.3 Briefly discuss any TWO advantages of fibre optic cables over twisted-pair cables in a computer network. (2 × 3) (6)

2.4 Describe how a client server network model works. (4)

2.5 Explain the purpose of ARP in a network. (2)
[20]

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QUESTION 3: DATABASE MANAGEMENT

3.1 All statements related to Data Definition Language (DDL) can be used in defining/creating a database structure or schema.

Identify any THREE DDL statements. (3)

3.2 Study the table below and answer the following questions. The name of the table is Enrolments.

SUBJECT	COURSE	NUMBER OF STUDENTS
Graphic Design	Marketing	35
Multimedia Service	ICT	32
Food and beverages	Hospitality	28

3.2.1 Write a query that will show all subjects where the number of students is greater than 30. (3)

3.2.2 Write a query that will add a record for the subject Computer Programming, ICT course where the number of students is 27. (3)

3.2.3 Write a query that will update the number of enrolments for Multimedia Service from 27students to 38. (3)

3.3 Highlight any THREE advantages or benefits of using SQL on your organisation's database. (3 × 2) (6)

3.4 Define a database *index.* (2)

[20]

QUESTION 4: WEB PLANNING AND DESIGN

4.1 Explain the importance of H1 tags on a website. (4)

4.2 Highlight TWO advantages of using frames on a website. (4)

4.3 Illustrate by means of a flowchart the development process of a website. (10)

4.4 Indicate TWO important functions of any website. (2)

[20]

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QUESTION 5: WEB PROGRAMMING

5.1 The website below shows a drop down list.

Produce the HTML code that will generate the drop down list.



(10)

5.2 Study the HTML code given below and answer the questions that follow:

.

5.2.1 Briefly explain the purpose of the code: *<img href.* (1)

5.2.2 Explain the importance of including *Alt = 'MyPicture'*.in this code? (1)

5.3 Produce the full JavaScript code that will give you the web page below. (6)



5.4 Explain the purpose of *Functions* as used in JavaScript. (2)

[20]

QUESTION 6: INTERNET SECURITY

6.1 Define the term *web attack toolkits.* (2)

6.2 Compare any THREE differences between an Intrusion Detection System (IDS) and antivirus software. (6)

6.3 You have been trying to log onto your bank account using internet banking. You keep getting an error saying, '*The server has failed to authenticate your details.'*

Discuss THREE possible causes of this type of error. (6)

6.4 Explain the purpose of a Virtual Private Network (VPN) that is used by organisations. (6)

[20]

TOTAL SECTION B: 100
GRAND TOTAL: 150

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