higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

INTRODUCTION TO INFORMATION SYSTEMS
NQF LEVEL 2

12 November 2024

This marking guideline consists of 8 pages.

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SECTION A

QUESTION 1

1.1	1.1.1	C
	1.1.2	A
	1.1.3	D
	1.1.4	D
	1.1.5	D
	1.1.6	A
	1.1.7	C
	1.1.8	C
	1.1.9	A
	1.1.10	B

(10 × 1) (10)

1.2	1.2.1	Marketing
	1.2.2	Data
	1.2.3	Knowledge
	1.2.4	Updated
	1.2.5	Intellectual
	1.2.6	Batch
	1.2.7	Codec
	1.2.8	Hard disk
	1.2.9	Headphones
	1.2.10	Projector

(10 × 1) (10)

1.3	1.3.1	False
	1.3.2	True
	1.3.3	True
	1.3.4	True
	1.3.5	False
	1.3.6	False
	1.3.7	False
	1.3.8	True
	1.3.9	True
	1.3.10	False

(10 × 1) (10)

1.4	1.4.1	F
	1.4.2	I
	1.4.3	A
	1.4.4	C
	1.4.5	E
	1.4.6	B
	1.4.7	J
	1.4.8	D
	1.4.9	G
	1.4.10	H

(10 × 1) (10)

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1.5 1.5.1 Chief executive officer
1.5.2 Human resource management
1.5.3 Local area network
1.5.4 Database management system
1.5.5 Uninterruptible power supply
1.5.6 Graphical user interface
1.5.7 Virtual reality
1.5.8 Central processing unit
1.5.9 Multifunction printer
1.5.10 Cathode ray tube

(10 × 1) (10)
[50]

TOTAL SECTION A: 50

SECTION B

QUESTION 2

2.1 2.1.1 Planning:
- Setting a plan to achieve company goals
- Developing strategies

Organising:
- Assigning tasks
- Ensuring that the work environment is conducive

Staffing:
- Ensuring that advertisements are placed
- Employing the right person for the job

Directing:
- Providing training
- Communicating effectively

Coordinating:
- Ensuring that work is carried out in the correct sequence

Controlling:
- Making adjustments as needed
- Making sure goals are being reached

(Any 2 × 1 functions)
(Any 2 × 1 descriptions) (4)

2.1.2
- Operational managers make operational decisions.
- The decisions are associated with the day-to-day needs of the business.
- They make the short-term decisions. (Any 2 × 2) (4)

2.1.3 (Any examples related to day-to-day/operational decisions are accepted.)

(Any 2 × 2) (4)

2.2
- Define the problem.
- Gather information.
- Analyse the information.
- Create solutions.
- Choose the best solution.
- Monitor the outcome. (2)

2.3
- The outcome should be monitored to ensure that the solution worked.
- If the solution did not work, the decision-making steps must be followed again to implement a new solution. (2 × 2) (4)

2.4 (Any examples related to company/user information system are accepted.)

(Any 2 × 2) (4)

[22]

QUESTION 3

3.1
- People – People are the users and operators of the information system.
- Hardware – Hardware is the physical parts of the information system that are used with software.
- Software – Software is used to manage the information collected as well as perform special functions upon request.
- Procedures – Procedures ensure that everyone using the system does so in the same manner.
- Networks – Networks allows the information to be shared and distributed to everyone using the system.
- Data/Databases – Data is held on the database where it can be manipulated and used as necessary.

(Any 3 × 1 elements)
(Any 3 × 1 descriptions) (6)

3.2
- Data is the raw material of information.
- When data is processed or sorted, it forms information that can be used.

(Any 2 × 2) (4)

3.3
- It can be used for self-service.
- It can be used to help resolve issues through clear information.
- All clients will have access to the same information.
- It can reduce company costs, thereby reducing client costs.
- It is available 24/7 to the client. (Any 2 × 2) (4)

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3.4 The use of computers✓ to store, receive, transmit and manipulate information✓ (2)

3.5
- Users may become frustrated with the system.
- Users may feel that their time is wasted.
- Users may be less likely to use the system.
- Users will be unable to make decisions using the information they required.
- The organisation may lose money due to the inefficiency.
- Customers may not be satisfied using the system. (Any 2 × 2) (4)

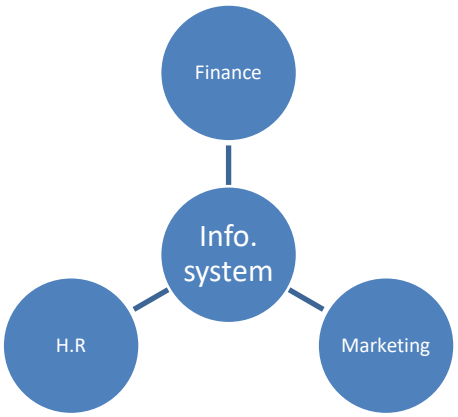
3.6
- User needs taken into account
- Features/Functions available
- Ease of use/Design of interface/System flexibility
- Hardware and software compatibility/modularity
- Cost of the system
- Security/Reliability (Any 3 × 1) (3)

[23]

QUESTION 4

4.1
- Unhappy employees may steal/sell data.
- Employees may send sensitive information to the wrong email address.
- Devices may be stolen by employees.
- Violation of company policies can lead to threats. (Any 2 × 1) (2)

4.2



- Centralised information system drawn✓✓
- Diagram labelled appropriately✓✓
- Data flow consistent with centralised information system✓✓

(6)

4.3
- Computers are able to track stock levels.
- Computers are used to process orders.
- Computers can be used to create inventory for order picking.
- Computers can choose the best routes for delivery.
- Computers can monitor the delivery process.
- Computers can provide real-time feedback on driver locations.
- Computers can monitor order trends, which help managers keep adequate stock. (Any 3 × 2) (6)

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4.4 4.4.1 Risk is the potential for loss or threat✓✓ from an uncertain situation.✓✓ (4)

4.4.2
- Implement access cards for employees.
- Use sign-in registers for visitors.
- Make sure that visitors are escorted.
- Ensure that there are burglar bars on computer room doors.
- Ensure that there is biometric access control on doors.
- Install security cameras with monitoring.
- Install alarm systems to prevent intrusion. (Any 3 × 2) (6)

4.4.3
- Screen locks must be implemented to prevent access when computers are not in use.
- Users must have strong passwords.
- Passwords must be changed regularly.
- Antivirus software must be updated.
- No personal files or folders should be kept on the computers.
- Data encryption must be used.
- Staff must be trained on security awareness.
- Illegal websites or software may not be used. (Any 3 × 2) (6)

[30]

QUESTION 5

5.1 5.1.1 The device is an abacus. (1)

5.1.2
- The abacus is used for adding numbers.
- The abacus is an addition tool.
- The abacus can be used to teach how to count. (Any ONE) (2)

5.2
- Output devices
- Storage devices (Any ONE) (2)

5.3
- Batch processing should be used when there are large quantities of data to be processed.
- Batch processing can be used for applications that do not require immediate results. (Any ONE) (2)

5.4
- End users use their computer for their job.
- End users may use their computer for entertainment, e.g. watching a movie or listening to music.
- End users have basic knowledge of computers. (Any 2 × 2) (4)

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5.5

Special-purpose	General-purpose
• Designed for one specific task • Cannot be adapted to new tasks • Limited software options (Any 2 × 1)	• Designed for a wide range of tasks • Can be programmed to do different tasks • Various software options (Any 2 × 1)

(4)

5.6

RAM	ROM
• RAM is primary storage.✓✓ • RAM memory will be lost when the power is turned off.✓✓	• ROM is secondary storage.✓✓ • ROM will not lose memory when the power is turned off.✓✓

(8)
[23]

QUESTION 6

6.1 6.1.1 Tab key (2)

6.1.2
- You can use the Tab key to indent text.
- You can use the Tab key to move the cursor a set number of spaces to the right.
- You can use the Tab key to jump into a new cell in tables.
- You can use the Tab key to go to the next field when filling in forms. (Any 1 × 2)

(2)

6.1.3 The numeric keypad (2)

6.1.4 Cursor movement keys (2)

6.1.5 The space bar (2)

6.2 6.2.1
- Control unit
- Arithmetic logic unit
- Registers
- Cache
- Clock
- Memory management unit (Any 2 × 2)

(4)

6.2.2
- The notebook can be used for educational purposes, e.g. studying.
- It can be used for entertainment, e.g. watching movies or listening to music.
- The notebook can be used for productivity, e.g. creating Word or Excel documents. (Any 2 × 2)

(4)

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6.2.3
- The computer hard disk can be changed to a solid-state drive to improve overall performance.✓✓
- The computer's random-access memory (RAM) can be upgraded to allow for more temporary storage.✓✓ (4)

6.2.4
- The mouse connects through Bluetooth.✓✓
- The transmitter is in the mouse, while the receiver is inserted into one of the notebook's USB ports.✓✓ (4)

6.2.5
- LEDs are low-power light-emitting diodes.✓✓
- When they are grouped, they make up a pixel.✓✓
- The pixels are coordinated by a video controller to produce a picture on screen.✓✓ (6)

6.2.6
- Do not drop the drive.
- Do not immerse the drive in water.
- Do not expose the drive to extreme temperatures.
- Keep the device dust-free.
- Always safely eject the device from the drive. (Any 2 × 2) (4)

6.2.7 A data projector can be connected to the notebook,✓ allowing more people to view the presentation.✓ (2)

6.3
- Impact printers
- Non-impact printers (2 × 2) (4)

6.4
- An offsite backup allows data to be safe at a different location.
- If there is a cyber-attack at one site, there is a data backup at another site.
- If work is accidentally deleted from the main site, there is always a backup off site. (2)

6.5

Lossy compression	Lossless compression
• Files take up less space. • Files can be transferred quickly. • Some quality is lost. • Data cannot be restored to the original state. (Any 2 × 2)	• Files take up more space. • Files cannot be transmitted quickly. • No quality is lost. • Data can be restored to the original state. (Any 2 × 2)

(8)

[52]

TOTAL SECTION B: 150
GRAND TOTAL: 200

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