

MARKING GUIDELINES

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GRADE		12	
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PAPER		2	
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SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREENSIEWE ASSESSERINGSINSTITUUT



MARKING GUIDELINES

- Revisit the questions and the marking guideline frequently during the marking session.
- It is advisable to read the question frequently (and re-read) together with the candidate's response to check that it correlates, so that you are not misled by the candidate's statements/answers.
- Do not focus on keywords or general statements, but rather read the entire answer. If in doubt, read the entire answer and then the question paper and marking guidelines.
 - Ask yourself or the IM or CM if the response could 'fit' into the marking guidelines before allocating the correct marks to the candidates:
 - For example, the marking guidelines state 'cheap' and the learner responds with 'less expensive'; and 'delete' and the candidate responds with 'erase'/'wipe'/'remove' etc.
- Beware of overlapping answers to a specific question. In general, ONE mark is awarded per fact.
- All marking should be done in **red pen**. Internal moderation is done in **black pen**, moderation by SACAI is done in **green pen**, while Umalusi moderates in **purple pen**.
- Marks should be indicated with a tick "✓" directly above the relevant keyword. In the case of two marks per fact, two ticks "✓✓" should be indicated. Do NOT place the tick at the end of the line (sentence) or paragraph. Mark wrong answers with a cross (X) or underline wrong sentences.

SECTION A

QUESTION 1: MATCHING ITEMS			
1.1	H	✓	(1)
1.2	O	✓	(1)
1.3	M	✓	(1)
1.4	I	✓	(1)
1.5	E	✓	(1)
1.6	J	✓	(1)
1.7	T	✓	(1)
1.8	A	✓	(1)
1.9	P	✓	(1)
1.10	S	✓	(1)
			[10]

QUESTION 2: MULTIPLE CHOICE			
2.1	A	✓	(1)
2.2	A	✓	(1)
2.3	B	✓	(1)
2.4	D	✓	(1)
2.5	B	✓	(1)
			[5]

QUESTION 3: TRUE OR FALSE

Note to marker: Do not award a mark if the sentence is changed, only the underlined term may be changed if the candidate indicated that the statement is false.

3.1	False, FTP	✓	(1)
3.2	False, survey/questionnaire	✓	(1)
3.3	False, copyright	✓	(1)
3.4	False, aspect	✓	(1)
3.5	False, multi-touch	✓	(1)
3.6	True	✓	(1)
3.7	False, IoT (Internet of Things)	✓	(1)
3.8	False, autonomous	✓	(1)
3.9	True	✓	(1)
3.10	True	✓	(1)
			[10]

TOTAL SECTION A: [25]



SECTION B

QUESTION 4: SYSTEM TECHNOLOGIES

4.1 Medium used by barcode and RFID

RFID uses radio waves ✓

Barcode uses light waves ✓

(2)

4.2 4.2.1 What is a service pack?

A service pack is a combination of updates released in one package ✓

(1)

4.2.2 Why are service packs not common in windows 10 & 11?

Users are forced to update Windows as soon as updates are released ✓

(1)

4.3 Devices used by SOHO and mobile users

SOHO user: Uses a desktop or laptop ✓

Mobile user: Uses a smartphone/tablet/other handheld (mobile) device ✓

(2)

4.4 Information from POS

- Inventory: more efficient/allows for tracking of goods/stock levels
- Product data: prices, codes
- Sales data: analysis of sales data/trends
- Financial reporting
- Staff performance
- Customer trends

Any two ✓✓

(2)

4.5 TWO disadvantages of using QR codes

- Can be used for malicious purposes/open malicious websites
- Must have an internet connection
- Must have a mobile/portable device with a camera
- It can use a lot of data if you are redirected to a website that plays video automatically
- People are not familiar with the use of QR code/People are not familiar with this technology

Any two ✓✓

(2)

4.6 Upgrade to latest Android version

- Newer security features/updates
- New functions
- Some new apps do not work on old Android versions.
- Fix bugs

Any three ✓✓✓

(3)



- 4.7 4.7.1 **Description: Extranet**
An extranet provides controlled access✓ to people not working for a company✓ (authorized customers, vendors, partners etc.). (2)
- 4.7.2 **Negative impact of technology on the workplace**
- Technology is the biggest reason for distraction e.g. constant notifications
 - Impact on employment (less unskilled employment opportunities)
 - Always-on lifestyle (work hours have increased because of staying connected after hours)
 - Technological failures (no lifetime guarantees on machines)
 - People become less creative (Technology enables us to automate a lot of the technical work)
- Any two✓✓
- Note: There are many negative impacts that the candidate may give, the above impacts must be used as guidelines. Award a mark if the candidate gives a negative impact not listed above.* (2)
- 4.7.3 **Telecommuting and intranet relationship**
Employees making use of telecommuting will use the intranet ✓ to get access to the company information ✓ (2)
- 4.8 **Install OS on SSD or hard drive and motivation**
SSD ✓
Reason:
- Computer will boot up faster
 - Applications and files stored on SSD will load faster
 - Better transfer rates and access times
 - More reliable because there are no moving mechanical parts
- Any one ✓ (2)
- 4.9 4.9.1 **Choice between AR and VR and motivation**
AR ✓
Reason: It places visual and auditory information on top of the real world experience giving the tourist additional information of their surroundings. ✓ (2)
- 4.9.2 VR ✓
Reason: It is not possible for the student to physically visit the international space station. He will view a 3D image/video of the space station. ✓ (2)

[25]

QUESTION 5: NETWORK AND INTERNET TECHNOLOGY

- 5.1 **Spoofing**
 The sending of email messages with a forged sender address, making the email appear to be from someone it is not ✓ (1)
- 5.2 **Cloud computing enables users to save money**
 No need for the user to have a computer with high specifications ✓
 All processing is done on a remote server ✓ (2)
- 5.3 5.3.1 **No sound and video during video conference**
- Privacy: protecting your private surroundings/private conversations etc.
 - Bandwidth and stability: video might take bandwidth, and this might lead to video buffering
 - Distractions: meetings can be interrupted by sounds/talking
- Any two ✓✓ (2)
- 5.3.2 **Attendee cannot join the meeting**
- Firewall might block the connection
 - Incorrect meeting details: Wrong meeting ID/password/Meeting capacity reached
 - Meeting access restrictions: organiser may have set specific access permissions
 - Not enough bandwidth/slow internet connection
- Any one ✓ (1)
- 5.4 5.4.1 **Why use a distribution list**
- A message can be sent to multiple recipients at once
 - No need to type many addresses separately
- Any one ✓ (1)
- 5.4.2 **Recipient in distribution list did not receive message**
- The recipient's mailbox is full
 - Problems with the e-mail server
 - Too many recipients on the distribution list
 - Data CAP is depleted/No internet access
- Any two ✓✓ (2)
- 5.5 **Is torrent illegal?**
 No, ✓ the files that are shared might be free/freeware ✓ (2)
- 5.6 **Update firewall in printer**
 A printer does not have a firewall ✓ and you do not update a firewall daily. ✓ (2)



5.7 **Using a cabled network instead of wireless network**

- Security: better security/not as easy or likely to be hacked
- Speed and performance: better performance/greater speeds (potentially)/less lag/greater stability of signal
- Interference: Less interference from external sources e.g. fluorescent lights and other electronic devices.
- Additional equipment like access points is not needed

Any two ✓✓ (2)

[15]



QUESTION 6: INFORMATION MANAGEMENT

6.1 Three spreadsheet features ideal for analysis

- Graphs/Charts
- Functions/Formulae
- Conditional formatting
- Filters
- What If? analysis

Any three ✓✓✓ (3)

6.2 Indication that info on website is not accurate

- The information cannot be confirmed/corroborated by other sources/no bibliography
- The author is not an authority in the field/The author is unknown
- The information is not current/Publishing date cannot be established
- Bias/Prejudice is evident in the information
- Poor language use/Spelling and grammar errors, etc.

Any two ✓✓ (2)

6.3 Why not to conduct online survey

- Limited participants: Participants might not have access to computer or the internet.
- Participants might not know how to use computers.
- Technical issues can prevent participants to complete online survey.

Any two ✓✓ (2)

Note: Any relevant answer why people might not be able to complete the survey online

6.4 Prevent typing errors in survey

- Use a drop down/combo box ✓
- Use a list box ✓

(2)

6.4 Queries helpful in analysing data

- Specific information can be extracted based on certain criteria
- Calculations can be done
- Data Validation can be done

Any one ✓ (1)

[10]

QUESTION 7: SOCIAL IMPLICATIONS

7.1 Disadvantages of adware

- Malware could be hidden within adware
- Can use up data/cap/data bundle
- Browsing could become slow
- Slow down the (overall) performance of the computer
- Security risk
- Privacy concerns

Any two ✓✓ (2)

7.2 Information overload and effects on productivity

Information overload is a state of being overwhelmed by the amount of data presented for one's attention or processing ✓

AND

- Time is wasted trying to make sense of the data
- The user is less productive
- User is easily distracted

Any one ✓ (2)

7.3 ONE way e-learning can motivate people to learn

- Immediate feedback/assessment
- Element of 'competition' (competing against yourself and others)
- Can work at your own pace (the pressure to stick to a fixed schedule is no longer there)
- Can collaborate/share knowledge with others online
- Access and interact with interesting multimedia content
- Can repeat instructions/assessment many times, etc.

Any one ✓ (1)

7.4 Computers controlled remotely by criminals

Botnet ✓

Zombie ✓

(2)

7.5 Function of virtual assistant software

The software makes it possible for you to speak (in a natural voice) to your computer/device, and it then 'understands' what you say (based on the context) and reacts to it ✓

(1)

7.6.1 Pattern not secure

- People can see the pattern that you draw if they look over your shoulder
- People can trace the pattern by the marks your fingers have left on the screen
- Limited number of patterns available/More options for passwords

Any one ✓ (1)

7.6.2 **Pattern more secure**

The lines between the dots are not shown as you draw the pattern ✓ (1)

[10]

QUESTION 8: SOLUTION DEVELOPMENT

8.1 **Identify error**

Bgcolour should be bgcolor ✓ (1)

8.2 8.2.1 **Purpose of track changes**

Track changes is the word processing feature that can be used to indicate the changes made to a document ✓ (1)

8.2.2 **Advantage of track changes**

- It records every edit without making anything permanent
- The changes made can be seen by all people working on the document.
- Changes made can be accepted or rejected with a single click/less typing

Any one ✓ (1)

8.3 8.3.1 **Conversion of file**

Exporting/Export ✓ (1)

8.3.2 **Identify type of file**

CSV/comma separated values ✓ (1)

8.3.3 **Why export to csv file**

Easier to import into other programs/many other programs can read CSV files ✓

Contents of file can be read by any program that can open a text file ✓ (2)

8.4 8.4.1 **What is query field called that is not included in the table**

Calculated field ✓ (1)

8.4.2 **Why is the field not visible in the table?**

Calculated fields only exist in the query/it is created when the query is executed and destroyed when the query is closed ✓ (1)

8.4.3 **Syntax to determine TotCost**

TotCost: ✓ [Price_Prys]*1.15 ✓

OR TotCost: ✓ [Price_Prys] + [Price_Prys]*0.15 / 15/100 ✓ (2)

8.5 8.5.1 **NOW() function**

The NOW() function will return the current date and time ✓

Note to marker: both date and time must be included (1)

**8.5.2 How to display the correct result**

Change the data type to short/long date ✓

(1)

8.6 Explain the VLOOKUP function

The value entered in A8 will be searched for in A2 to D6. ✓ If the value is found then the value in the 3rd column (of A2 to D6) will be displayed ✓

(2)

[15]



SECTION C

QUESTION 9: INTEGRATION

9.1 Prevention

It is trying to prevent the installation of malware ✓ (1)

9.2 Disadvantages of e-learning

- Potential lack of guidance/input/feedback/monitoring from teacher
- Dependant on internet access
- Feelings of being isolated/lack of human contact/lack of socialisation skills
- Health-related concerns ('Long hours of sitting'), etc.

Any two ✓✓ (2)

9.3 9.3.1 Explain phishing

Phishing is any attempt to trick a user ✓ into giving sensitive information ✓ (2)

9.3.2 Anti-virus prevents phishing

- It can block an e-mail from a suspected source
- It looks at commonly used phrases in phishing attempts
- It looks at the link in the mail and see if it redirects to a malicious website

Any two ✓✓ (2)

9.4 Bitcoin mining is not considered green computing

- Energy consumption: uses excessive amounts of energy
- Carbon Footprint

Any one ✓ (1)

9.5 Webpage opens in Notepad

The file is saved as a text file not as html file. ✓

The default program to open html files is set to Notepad ✓ (2)

9.6 HTML cell padding and cell spacing

A: Cellpadding ✓ – the space between the text and the cell edges ✓

B: Cell spacing ✓ – the space between each cell ✓ (4)

9.7 9.7.1 Cryptocurrency private key/wallet lost

All funds lost can never be recovered ✓ (1)

9.7.2 Blockchain is classified as what type of application software

Database ✓ (1)

9.7.3 Why people not buying cryptocurrencies

People do not have knowledge/are not educated about cryptocurrencies/do not trust cryptocurrencies ✓ (1)

- 9.8 **No signal everywhere in the centre**
 A WiFi extender/repeater must be installed ✓ (1)
- 9.9 **Connection technologies – not cables**
- Cellular (3G/4G/LTE)
 - Wi-Fi
 - Satellite
- Any two ✓✓ (2)
- 9.10 **Printer not printing on Windows 11**
 The driver of the printer is not compatible with Windows 11 ✓
 Download and install a new driver for the printer ✓ (2)
- 9.11 9.11.1 **Technology that notifies a user of an incoming e-mail**
 Push notification ✓ (1)
- 9.11.2 **TWO reasons not to download attachments automatically**
- Data Usage: to reduce (cost of) data usage
 - Storage space: save storage space
 - Security and Privacy: attachment might be malware/viruses
 - Network: automatic downloads may slow network down
 - Save battery life
- Any two ✓✓ (2)
- [25]**



QUESTION10: INTEGRATION

10.1 TWO limitations of drones

- Battery life: limits the flying time of the drone and sometimes you need to have multiple batteries
- Weather conditions: Unable to fly in strong winds OR rain or snow can damage the electronic components
- Communication range: Must be within the communication range
- Rules and regulations: flight restrictions, flight height, licencing, etc.
- Skills and Training: Piloting a drone requires skills

Any two ✓✓ (2)

10.2 Monitor B beter for gaming

Monitor B has a lower (faster) ✓ response time ✓ (2)

10.3 10.3.1 4th IR leads to greater productivity

Automation ✓ will lead to greater productivity (1)

10.3.2 Demand for highly and lower skilled workers

Highly skilled workers ✓
Reason: They have the knowledge to create and invent the technologies used in the 4th IR ✓ (2)

10.4 Change the format/extension of the Word document to read only

Right click the file and change the properties✓ to read only
In the Word document click File → Save as → Browse (optional depending on Office version) → Tools → General options → click Read-only recommended check box ✓ (2)

Note: With the second method candidates need only specify Save as or Tools and click on Read-only check box

10.5 Files not showing on flash drive

The folder on the flash drive is hidden ✓
Operating system is set not to display hidden files ✓ (2)

10.6 10.6.1 Device management of OS

The Operating system ✓ manages all the hardware or virtual devices of a computer or PC ✓ (2)

10.6.2 Memory management of OS

This function keeps track of the status of all memory locations ✓ whether they are allocated or available ✓ (2)

- 10.7 **Best external device to use**
 External SSD ✓
AND
- Data transfer to an SSD is fast
 - SSD is reliable
- Any one ✓ (2)
- 10.8 **Advantage of micro-USB**
- Compatibility: is standard on most mobile devices, can share chargers/connectors
 - Size: takes up less space/device can be made smaller/thinner
 - Transfer speed: Higher power delivery and data transfer speed
- Any two ✓✓ (2)
- 10.9 **TWO reasons why edges of poem not printing**
- Printer is not capable of printing close to the edge
 - Printer margin settings override the document margins
 - Printer cannot cater for the specified page size
 - Paper gets misaligned as it passes through the printer
- Any two ✓✓ (2)
- 10.10 **Will UPS save power?**
 No, ✓ charging of the batteries use power/the components of the UPS use power ✓ (2)
- 10.11 **Entry level desktop vs entry level laptop**
 Very difficult or impossible to upgrade a laptop (to meet the higher system requirements that future software installations may require) (1)
- 10.12 **CMYK refers to**
 Ink containers/cartridges (1)
- [25]**