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GRADE 10 EXAMINATION
JUNE 2022**COMPUTER APPLICATIONS TECHNOLOGY: PAPER II****NAME**

Examiner: Insert your name here

Moderator: Mrs J Flanagan

Time: 2 hours

Marks: 90

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This question paper consists of 17 pages. Please check that your question paper is complete.
2. The paper is divided into Section A (15 Marks), Section B (45 Marks) and Section C (30 Marks).
3. Answer ALL the questions. Remember to write your name in the space provided.
4. Non-programmable calculators may be used.
5. It is in your own interest to write legibly and to present your work neatly. Check your language and spelling.
6. Read the questions carefully. Take note of the wording of the questions, i.e. explain, name, select, discuss, identify, etc. and then answer accordingly.
7. Give your answers in general terms. Use brand names only when asked, e.g. use "word processing" rather than "Microsoft Word".
8. In general, a mark is allocated per fact. Therefore, a two-mark question would require two facts, and so on.
9. One blank page (page 17) is included at the end of this paper. If you run out of space when answering a question, use this page. Clearly indicate the question number of your answer should you use this extra space.

SECTION	A		B			C		TOTAL
	15		45			30		
QUESTION	1	2	3	4	5	6	7	
MARKS	5	10	20	15	10	15	15	90
OBTAINED								

SECTION A

QUESTION 1

Give the **MOST appropriate** term for each of the following expressions:

- 1.1 A temporary storage area for data that the user wants to copy from one area or application to another.

(1)
- 1.2 A small image displayed on the screen to represent an object.

(1)
- 1.3 A predefined formula in a spreadsheet program that performs calculations using specific values in a particular order.

(1)
- 1.4 A document containing the formatting and layout suggestions for a specific type of document such as a fax or an agenda.

(1)
- 1.5 A container for programs and files in a GUI (Graphical User Interface).

(1)

[5]

QUESTION 2

Select the **MOST** appropriate answer to each question. Write down **ONLY** the letter of your choice in the space provided.

- 2.1 Which **ONE** of the following is **NOT** a security measure used with online banking?

- A Password
- B Pin code
- C OTP (One Time Pin)
- D Fingerprint recognition

2.1		(1)
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- 2.2 While chatting online with your friend, Jane, she asks to view your live image.
Which **ONE** of the following input devices installed on your computers will help her to achieve this?

- A Keyboard
- B Microphone
- C Scanner
- D Webcam

2.2		(1)
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- 2.3 Various types of files are created on your computer while using the Internet. Some of these files might present a threat to security but are present for the benefit of the user.

Which **ONE** of the following is an example of such a file?

- A Cookie
- B Trojan
- C Virus
- D Worm

2.3	
-----	--

(1)

- 2.4 Your teacher creates a video on new technologies by using the name "NewTech". She wants to edit this video before sharing it with her students.

Which **ONE** of the following files will your teacher open to edit the video?

- A NewTech.gif
- B NewTech.mp4
- C NewTech.mp3
- D NewTech.jpg

2.4	
-----	--

(1)

- 2.5 The following are **TRUE** about open-source software **EXCEPT** ...

- A It is distributed only with new computers.
- B The source code is made available.
- C Changes cannot be made and distributed.
- D It is free of charge.

2.5	
-----	--

(1)

- 2.6 Mpho reads an article about digital cameras. He wants to know more about the term **resolution**.

To help Mpho, which **ONE** of the following options would you use to define **resolution**?

- A Size of a lens.
- B Colour of an image.
- C Clarity of an image.
- D Zoom of a camera.

2.6	
-----	--

(1)

2.7 Non-responding programs are best closed using ...

- A Disk Cleanup.
- B Task Manager.
- C System Restore.
- D Disk Defragmenter.

2.7	
-----	--

(1)

2.8 You need to plan your budget for next month. To do this, you record your daily expenses of the current month and then calculate the total expenses for the various categories, including groceries, medical expenses, and clothes.

Which **ONE** of the following programs will you use to maintain the expense records and calculate the total of each category?

- A Database program.
- B Presentation program.
- C Spreadsheet program.
- D Word processing program.

2.8	
-----	--

(1)

2.9 You need to copy formatting attributes and apply them to different sections of your word processing document.

Which **ONE** of the following features of a word processing document do you use?

- A AutoCorrect
- B AutoFormat
- C Copy and Paste
- D Format Painter

2.9	
-----	--

(1)

2.10 Linda learns that she can compress digital video. She wants to know the advantage of compressing digital video.

Which **ONE** of the following options describes the advantage of compressing digital video?

- A Reduces the file size.
- B Improves brightness.
- C Improves contrast.
- D Adds special effects.

2.10	
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(1)

[10]

[SECTION A: 15 MARKS]

SECTION B

QUESTION 3: SYSTEM TECHNOLOGIES

3.1 Give the names **AND** the categories of the hardware devices appearing in the images in the tables below:

3.1.1

 [Source: <https://www.tech-recipes.com/>]			
Name			
Category (Circle the correct answer)	Input	Output	Storage

(1)

(1)

3.1.2

 [Source: <https://www.edifier.co.za/>]			
Name			
Category (Circle the correct answer)	Input	Output	Storage

(1)

(1)

3.1.3



Name			
Category (Circle the correct answer)	Input	Output	Storage

(1)

(1)

3.1.4



Name			
Category (Circle the correct answer)	Input	Output	Storage

(1)

(1)

3.2 A motherboard is the main circuit board in a computer on which different chips and devices are mounted.

3.2.1 One of the most important chips on the motherboard is the CPU (Central Processing Unit). What is the function of the CPU?

(1)

- 3.2.2 There are slots on the motherboard which are used to connect smaller boards to add extra functions to the computer. Two of these slots are the PCIe and SATA slots. Compare the function of the PCIe and SATA slots.

PCIe: _____

_____ (1)

SATA: _____

_____ (1)

- 3.2.3 RAM (Random Access Memory) and ROM (Read Only Memory) are important chips on the motherboard. Distinguish between RAM and ROM by providing **TWO** important differences between the chips.

RAM	ROM
_____	_____
_____	_____
_____	_____
_____	_____

(2)

(2)

- 3.3 Windows 10 is the latest operating system version released by Microsoft. An operating system is a form of system software.

- 3.3.1 Provide **TWO** functions of an operating system.

Function 1: _____

Function 2: _____

(1)

(1)

- 3.3.2 Name **TWO** types of system software, other than an operating system.

(2)

- 3.3.3 Name **ONE** other operating system, except Windows 10.

(1)

[20]

QUESTION 4: INTERNET AND NETWORK TECHNOLOGIES

4.1 A network is a collection of computers, connected, to share hardware and software resources.

4.1.1 Name **ONE** other function of a network.

(1)

4.1.2 A router and switch are important hardware devices that form part of a LAN (Local Area Network). Discuss the functions of these devices.

Switch: _____

(1)

Router: _____

(1)

4.2 A server is connected as a network device and has been allocated the following address:

IP address: 10.0.180.2

4.2.1 List **ONE** benefit of having a server connected as a node on the network.

(1)

4.2.2 What is the purpose of an IP address?

(2)

4.2.3 A URL is always associated with an IP address.

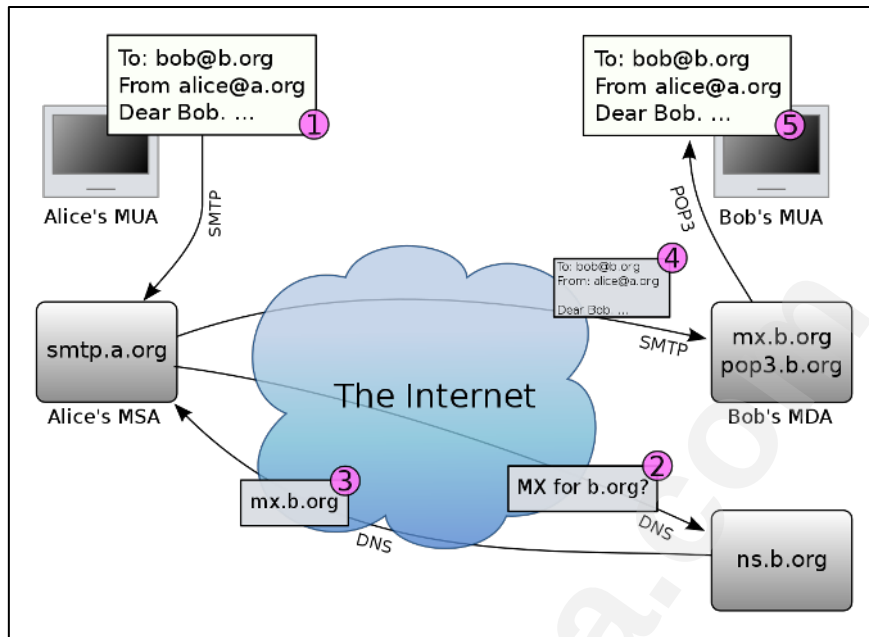
(a) Expand the acronym URL.

(1)

(b) Why is a URL always associated with an IP address?

(1)

4.3 The image below shows the sequence of events when an email is sent.



[Source: <https://en.wikipedia.org/>]

4.3.1 Name **ONE** popular email program.

_____ (1)

4.3.2 An email address is created with a specific format. Refer to Alice's email address: **alice@a.org**

(a) What does **alice** in the email address refer to?

_____ (1)

(b) What does **a.org** in the email address refer to?

_____ (1)

4.3.3 What is the difference between using an email client and webmail?

Email client: _____

_____ (1)

Webmail: _____

_____ (1)

4.3.4 Name **TWO** communication mediums, other than email, that are used to send out messages using the Internet.

Medium 1: _____ (1)

Medium 2: _____ (1)

[15]

QUESTION 5: SOLUTION DEVELOPMENT

- 5.1 Select the most appropriate spreadsheet error indicator from the list below for each statement:

#####	Circular Reference	#NAME?	#REF!	#VALUE!	#NUM!	#NULL!
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- 5.1.1 An operator, colon or comma has been left out of a formula.

_____ (1)

- 5.1.2 When a formula contains a cell reference that is the same as the current cell.

_____ (1)

- 5.1.3 An error is shown when a formula references one or more cells that contain text instead of numbers.

_____ (1)

- 5.2 In each of the following cases, briefly explain the reason why the word processing technique is **NOT** good practice **AND** give the appropriate feature that should be used.

- 5.2.1 Using the ENTER key to create a gap between paragraphs.

Reason: _____

_____ (1)

Feature: _____

_____ (1)

- 5.2.2 Using the ENTER key to shift text to a new page.

Reason: _____

_____ (1)

Feature: _____

_____ (1)

- 5.2.3 Using the SPACE BAR to position text "away from the margin".

Reason: _____

_____ (1)

Feature: _____

_____ (1)

- 5.3 *AutoSum* is one of the most underutilised features of Excel. What is the function of this feature?

(1)

[10]

[SECTION B: 45 MARKS]

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SECTION C

Consider the following scenario when answering the **rest of the examination paper, unless the questions are of a general nature or otherwise stated.**

SuperSport Schools turned one this May. **SuperSport Schools** was started to grow schools sport and get more sports stars to shine, across the African continent by broadcasting the full South African SCHOOLS SPORT story – from the beginning! Their vision is to extend this to encompass the African Continent.

SuperSport Schools records and live-streams schools sport automatically – indoors and outdoors – so that parents and other interested parties can watch from anywhere LIVE or any time ON-DEMAND and at NO COST to the viewer.

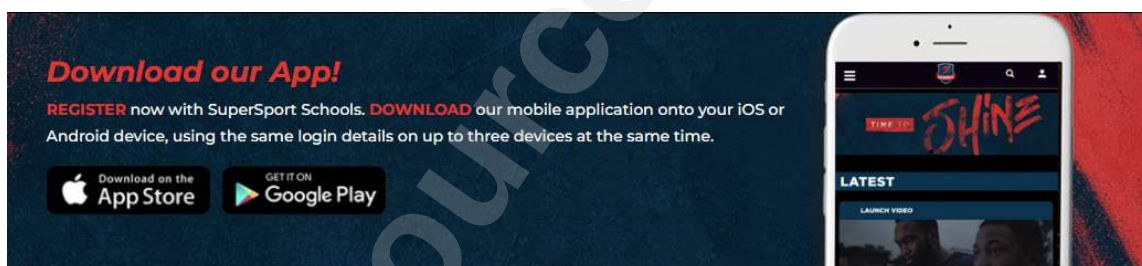
They have also archived over 900 games, from more than 100 schools that you can watch too. Simply click on the school that you wish to follow and start sharing all your favourite games with your friends and family.

And, if you are lucky enough to be at the game to watch, schools sport you can make clips and highlight reels to share on social media or DOWNLOAD the full HD version of the game via the SuperSport Schools internet browser.

[Source: <https://supersportschools.com/> (17 May 2022)]

QUESTION 6: INTEGRATED SCENARIO

6.1 The banner below provides information on how to download the **SuperSport Schools** app.



[Source: <https://supersportschools.com/> (17 May 2022)]

Data, information, and knowledge are terms that are often used interchangeably. In the example above, determine the data, information, and knowledge.

Data: _____

_____ (1)

Information: _____

_____ (1)

Knowledge: _____

_____ (1)

- 6.2 In the May 2022 newsletter, **SuperSport Schools** reported on “The incredible growth of our footprint”. They have rolled out over 100 automated and artificial intelligence driven cameras across over 70 schools and clubs. Some viewers have had problems with the video image and **SuperSport Schools** have decided to send out a survey to all their registered users to improve their service.

Give **TWO** tips for setting high quality questions to be included in the survey.

Tip 1: _____
 _____ (1)

Tip 2: _____
 _____ (1)

- 6.3 Most schools are getting their supports to use their smartphone and QR codes instead to view sports programmes instead of printing.

- 6.3.1 A smartphone is a converging device. Explain the concept of a converging device.

 _____ (1)

- 6.3.2 Expand the acronym “QR” in QR code.

_____ (1)

- 6.3.3 How are QR codes different to barcodes.

QR Codes: _____
 _____ (1)

Barcodes: _____
 _____ (1)

- 6.3.4 Explain how visitors could use QR codes and their smartphones to view the school sports programme.

 _____ (2)

- 6.3.5 Discuss **TWO** benefits to the environment of using QR codes instead of printing sports programmes.

Benefit 1: _____
 _____ (1)

Benefit 2: _____
 _____ (1)

- 6.4 The extract from the **SuperSport Schools** website above offers users the opportunity to make clips and highlight reels to share on social media or DOWNLOAD the full HD version of the game via the SuperSport Schools internet browser.

What does the article mean when they refer to the full HD version of the game? *Do NOT merely expand the acronym.*

 _____ (2)
[15]

QUESTION 7: INTEGRATED SCENARIO continued

- 7.1 To exclusively enjoy **SuperSport Schools** content, you are required to register on the website by creating an account with a username and a password.

7.1.1 Why would the website require **BOTH** a username **AND** a password.

 _____ (2)

7.1.2 Recommend **TWO** tips to create a secure password for your account.

Tip 1: _____

 Tip 2: _____
 _____ (2)

7.1.3 The website allows you to set up your profile. What is a user profile?

 _____ (1)

7.2 “We have also archived over 900 games, from more than 100 schools that you can watch too. Simply click on the school that you wish to follow and start sharing all your favourite games with your friends and family.”

7.2.1 The **SuperSport Schools** website uses cloud computing. Explain the concept of cloud computing.

(1)

7.2.2 Discuss **TWO** benefits of cloud computing.

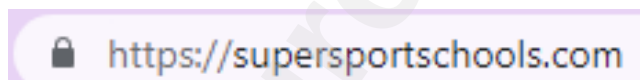
Benefit 1: _____

(1)

Benefit 2: _____

(1)

7.3 The **SuperSport Schools** website is secure. Refer to the web address below:



7.3.1 Identify **TWO** features that indicate that this website is secure.

Feature 1: _____

(1)

Feature 2: _____

(1)

7.3.2 Not all websites are secure. This could result in you downloading malware on to your computer. Name **ONE** program that you could install on your computer to prevent your computer from being infected by malware.

(1)

7.3.3 Why would an author's name on a website not be enough to consider the website content trustworthy?

(1)

- 7.4 “In his State of the Nation Address this year, President Cyril Ramaphosa said that on March 31, South Africa would switch off the analogue signal that transmits TV audio and video images to households across the country.”

[Source: Ready for the digital switch?, Norman Cloete, Independent on Saturday, 26 March 2022]

Although this switch did not happen on 31 March, it will happen on 30 June. It will not affect **SuperSport Schools** viewers; however, it will affect **SuperSport** viewers.

- 7.4.1 What is the difference between an analogue signal and a digital signal?

Analogue: _____

(1)

Digital: _____

(1)

- 7.4.2 Discuss how this switch over will affect television viewers in the country that enjoy watching sport?

(1)

[15]

[SECTION C: 30 MARKS]
[GRAND TOTAL: 90 MARKS]

ADDITIONAL SPACE (All questions)

REMEMBER TO CLEARLY INDICATE AT THE QUESTION THAT YOU USED THE ADDITIONAL SPACE TO ENSURE THAT ALL ANSWERS ARE MARKED. LABEL YOUR ANSWERS CLEARLY WITH THE QUESTION NUMBER.

[illegible]