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

Examiner: Insert your name here

Moderator: Mrs J Flanagan

Time: 2 hours

Marks: 120

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This question paper consists of 19 pages. Please check that your question paper is complete.
2. The paper is divided into Section A (20 Marks), Section B (60 Marks) and Section C (40 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.
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. If you need more space, you may use the extra lines provided at the end of the examination paper; however, make sure that you indicate this clearly to ensure that your answer is marked in full.

SECTION	A		B					C		TOTAL
	20		60					40		
QUESTION	1	2	3	4	5	6	7	8	9	
MARKS	10	10	20	11	10	9	10	22	18	120
OBTAINED										

SECTION A

QUESTION 1

1.1 Expand the following acronyms.

1.1.1 PDF

_____ (1)

1.1.2 NIC

_____ (1)

1.1.3 EFT

_____ (1)

1.1.4 FAQ

_____ (1)

1.1.5 RFID

_____ (1)

1.2 Choose the **MOST** appropriate term (underlined and given in brackets) for each statement that follows. Write **ONLY** the term of your choice in the space provided next to each statement number.

1.2.1 An (ISP/ICT) is a company that provides a fast, permanent connection for its clients to access the Internet at a monthly cost.

1.2.1		(1)
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1.2.2 Google is an example of a (web browser/search engine).

1.2.2		(1)
-------	--	-----

1.2.3 (Adware/Ransomware) is a type of malware that locks a system until an amount is paid.

1.2.3		(1)
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1.2.4 (Freeware/Shareware) is a full software package available to a user, for a trial period, and at no cost.

1.2.4		(1)
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- 1.2.5 The (thesaurus/spell check) feature of a word processing program can be used to find a synonym of a word.

1.2.5	
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(1)

[10]**QUESTION 2**

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

- 2.1 Which **ONE** of the following is **NOT** a function that is available for calculations in a Word table?

- A MIN
- B AVERAGE
- C MODE
- D MAX

2.1	
-----	--

(1)

- 2.2 Which **ONE** of the following describes an online journal or diary that links to articles on other websites.

- A Blog
- B Wiki
- C Clipboard
- D Podcast

2.2	
-----	--

(1)

- 2.3 CTRL + V is a common computer shortcut generated by holding down the CTRL key while pressing the V key on most computer keyboards.

What does CTRL + V do?

- A Print
- B Undo
- C Redo
- D Paste

2.3	
-----	--

(1)

2.4 You want to connect your printer, smartphone, laptop, and headphones using Bluetooth technology.

What type of computer network would be the most suitable?

- A LAN
- B MAN
- C PAN
- D HAN

2.4	
-----	--

(1)

2.5 The following statements indicate good password practice **EXCEPT** ...

- A Passwords should contain personal information.
- B Passwords should be at least 8 characters in length.
- C Passwords should contain uppercase and lowercase letters.
- D Passwords should be changed frequently.

2.5	
-----	--

(1)

2.6 Nadine enters a cellphone number into a spreadsheet and the leading zero keeps 'disappearing', e.g., 0832349512 becomes 832349512.

To help Nadine, which **ONE** of the following options would you suggest she use to solve her problem?

- A Change the width of the columns to a suitable size.
- B Change the data type of the cell to text.
- C Decrease the number of decimal places to zero.
- D Add and equal sign in front of the number.

2.6	
-----	--

(1)

2.7 Which **ONE** of the following storage measurements has the smallest capacity?

- A 8 KB
- B 2 MB
- C 1024 bytes
- D 0.0001 GB

2.7	
-----	--

(1)

2.8 Which **ONE** of the following file types would most likely contain hyperlinks?

- A .jpg
- B .png
- C .mp3
- D .html

2.8	
-----	--

(1)

2.9 Alisha wants to send a copy of an email message so that the recipient's name is visible to other recipients of the message.

Which **ONE** of the following features of an email program would Alisha use?

- A CC
- B Forward
- C Reply
- D BCC

2.9	
-----	--

(1)

2.10 Jacob, a student, learns that he can use works from Creative Commons.

Which **ONE** of the following statements about a Creative Commons licence is **FALSE**?

- A Allows material to be redistributed.
- B Gives credit to the original content author.
- C Allows for content to be modified.
- D Offers free copyright licences.

2.10	
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(1)

[10]

[SECTION A: 20 MARKS]

SECTION B

QUESTION 3: SYSTEM TECHNOLOGIES

3.1 Complete the tables below by identifying the hardware devices in the images **AND** stating their main function.

3.1.1



[Source: <<https://5.imimg.com/data5/CW/JN/EN/SELLER-98175186/smps-500x500-500x500.jpg>>]

Name of hardware		(1)
Main function		
		(1)

3.1.2



[Source: <<https://static.raru.co.za/cover/2021/05/11/8554817-1-l.jpg?v=1620722963>>]

Name of hardware		(1)
Main function		
		(1)

3.1.3



[Source: <<https://i.pcmag.com/imagery/roundups/01W1tJVXeZpHiNwz6rJ6HV0-7..v1636995201.jpg>>]

Name of hardware	
Main function	

(1)

(1)

3.1.4



[Source: <<https://www.makerbot.com/wp-content/uploads/2018/08/MakerBot-Replicator-Mini-Product-Image.png>>]

Name of hardware	
Main function	

(1)

(1)

3.2 A computer can be considered as any device that can process data into information.

3.2.1 Using a suitable example, explain the difference between **data** and **information**.

(4)

3.2.2 The CPU is responsible for converting data into information.

(a) What unit is the speed of the CPU measured in?

(1)

(b) Name **ONE** other function of a CPU.

(1)

3.3 RAM (Random Access Memory) is considered to be primary memory and a HDD (Hard Disk Drive) secondary memory. Distinguish between primary memory and secondary memory by providing **TWO** important differences between the two types of memory.

Primary Memory	Secondary Memory

(4)

3.4 Software can be divided into two main categories, i.e. System Software and Application Software.

Describe the functions of these **TWO** categories of software:

System Software: _____

(1)

Application Software: _____

(1)

[20]

QUESTION 4: INTERNET AND NETWORK TECHNOLOGIES

4.1 Your parents have asked you to help them set up a network at home so that all the devices at home can share data and access the Internet.

4.1.1 Give **TWO** examples of hardware that will be required to set up this network.

Hardware 1: _____

Hardware 2: _____ (2)

4.1.2 Give **ONE** example of software that will be required to set up this network.

_____ (1)

4.1.3 Would you consider this network to be a HAN or a PAN? Provide a suitable justification for your answer by explaining the difference between a **HAN** and a **PAN**.

HAN PAN *Circle the correct answer.* (1)

Justification: _____

_____ (2)

4.2 Web-based email systems have become more popular than ISP-based email systems.

4.2.1 Name **ONE** advantage of using a **web-based**, compared to an **ISP-based** email system.

_____ (2)

4.2.2 Name **ONE** popular web-based email system.

_____ (1)

4.2.3 When writing emails, there are certain conventions that should be followed; this is called Netiquette. Discuss **TWO** Netiquette rules that you should follow when writing emails.

Rule 1: _____

Rule 2: _____

_____ (2)

[11]

QUESTION 5: INFORMATION MANAGEMENT

Businesses often send surveys via email to customers for feedback on services offered.

5.1 Discuss why a survey would be more effective than an interview.

(2)

5.2 Give **TWO** types of questions that a business could include in a survey.

Question Type 1: _____ (1)

Question Type 2: _____ (1)

5.3 Explain how the business could process the data that they received from the survey.

(2)

5.4 Discuss **TWO** ways that the results of the survey could be presented to the employees.

Method 1: _____

_____ (2)

Method 2: _____

_____ (2)

[10]

QUESTION 6: SOCIAL IMPLICATIONS

6.1 Young people are spending more time online. This is a worry for parents as their children could be victims of a computer crime.

6.1.1 Briefly explain the following computer crimes:

(a) Cyberstalking: _____

 _____ (1)

(b) Identity Theft: _____

 _____ (1)

6.1.2 It is important to prevent computer crimes before they happen. Give **THREE** methods parents could use to ensure that their children are safe from computer crimes.

Method 1: _____
 _____ (1)

Method 2: _____
 _____ (1)

Method 3: _____
 _____ (1)

6.2 Technology is beneficial for the South African economy and environment; however, it can also be harmful.

6.2.1 Give **TWO** ways that technology can harm the environment.

Example 1: _____

Example 2: _____
 _____ (2)

6.2.2 Give **TWO** benefits of the use of technology for the South African economy.

Benefit 1: _____

Benefit 2: _____
 _____ (2)

[9]

QUESTION 7: SOLUTION DEVELOPMENT

- 7.1 Choose the **MOST** appropriate word processing feature from the table below for each statement that follows. Write down **ONLY** the feature of your choice in the space provided.

Template	Subscript	Font	Watermark	Ribbon	Tabs	Superscript
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- 7.1.1 A paragraph formatting feature that is used to align text.

_____ (1)

- 7.1.2 A number or symbol that is smaller than and is set slightly below normal text.

_____ (1)

- 7.1.3 A light and faded image of text or image that appears behind the main content of a document, generally used to protect copyrights.

_____ (1)

- 7.2 Study the extract of the spreadsheet below which calculates the discounted price of various smartphones on special.

	A	B	C	D	E	F
1	Smartphone Specials					
2	Type	Model	Storage (GB)	Price	Discount (%)	Discounted Price
3	Apple	iPhone 14 Pro	256	R29189	10	=D3*E3
4	Apple	iPhone 14	128	R20499	15	=D4*E4
5	Samsung	Galaxy A52s	128	R7499	15	=D5*E5
6	Huawei	Nova 8	128	R9799	15	=D6*E6
7				=AVERAGE(D3:D6)		

- 7.2.1 Explain the concept of a cell reference, by using examples from the spreadsheet above.

 _____ (2)

- 7.2.2 Identify the formatting used in the cell range A1 to F1.

_____ (1)

- 7.2.3 The formula entered in column F displays the incorrect result. Write down the correct formula that should be entered in cell F3.

 _____ (2)

- 7.2.4 Cell D7 includes a function which analyses the data in column D. Name **TWO** other functions you could use to further analyse data in the spreadsheet.

Function 1: _____ (1)

Function 2: _____ (1)

[10]

[SECTION B: 60 MARKS]

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.**

The FIFA World Cup Qatar 2022™ will be played from 20 November to 18 December in Qatar. It will be the 22nd edition of the competition, and the first played in the Arab world.

[Source: <https://e0.365dm.com/22/10/1600x900/skysports-world-cup-qatar-2022_5921764.jpg?20221006085810>]



QUESTION 6: INTEGRATED SCENARIO

- 8.1 All 64 matches will be streamed live on Showmax Pro in 4K, courtesy of Supersport. The ultra-high-definition screen resolution that comes with 4K is 3840 by 2160 pixels.

[Source: <<https://www.news24.com/channel/partnercontent/where-to-stream-the-fifa-world-cup-in-qatar-in-4k-from-just-r199-20221018>>]

- 8.1.1 How will the 4K screen resolution benefit viewers?

(2)

- 8.1.2 Name **ONE** device that will support the 4K stream.

(1)

- 8.2 The 2022 World Cup organisers promise a number of innovative changes.

- 8.2.1 One of these innovative changes is a revolutionary World Cup ball which features a connected ball technology that relays real-time data to the officials.

[Source: <<https://www.goal.com/en-in/lists/world-cup-of-innovation-technological-revolutions-qatar-2022/blt06e6383e481a9d9c#cs5794bfef84e306b4>>]

Name **TWO** types of data that will be relayed to the officials.

Data type 1: _____ (1)

Data type 2: _____ (1)

8.2.2 Facial recognition cameras and drones will be used at the stadiums.

[Source: <<https://www.sporttechie.com/qatari-officials-will-deploy-facial-recognition-security-at-fifa-world-cup>>]

- (a) How do face recognition cameras work?

(2)

- (b) Name **TWO** ways that face recognition cameras will benefit the World Cup organisers?

Benefit 1: _____

(1)

Benefit 2: _____

(1)

8.3 Fans are advised to buy their tickets from the official FIFA site, <https://www.fifa.com/>.

8.3.1 When requesting a ticket, the following shows on your screen.



- (a) What is this image referred to?

(1)

- (b) What is the reason for ticket sites requesting fans to enter these characters?

(1)

- (c) When the fans purchase their tickets, they are asked to download a copy of the ticket.

Distinguish between **downloading** and **uploading**.

(2)

8.3.2 Fans would need to be aware of fake ticket sites and emails offering tickets for sale.

- (a) What is the name of the social engineering technique where criminals send emails masquerading as a reputable company to trick people into giving them personal details and financial information.

_____ (1)

- (b) Give **THREE** ways that fans can protect themselves against these criminals.

Method 1: _____ (1)

Method 2: _____ (1)

Method 3: _____ (1)

8.4 Most of the players will wear smart watches.

8.4.1 A smart watch is a form of dedicated computer. What is a dedicated computer?

_____ (2)

8.4.2 What would the players need their smart watches for? Discuss **TWO** ways that they could use them at the World Cup.

Function 1: _____

Function 2: _____
_____ (2)

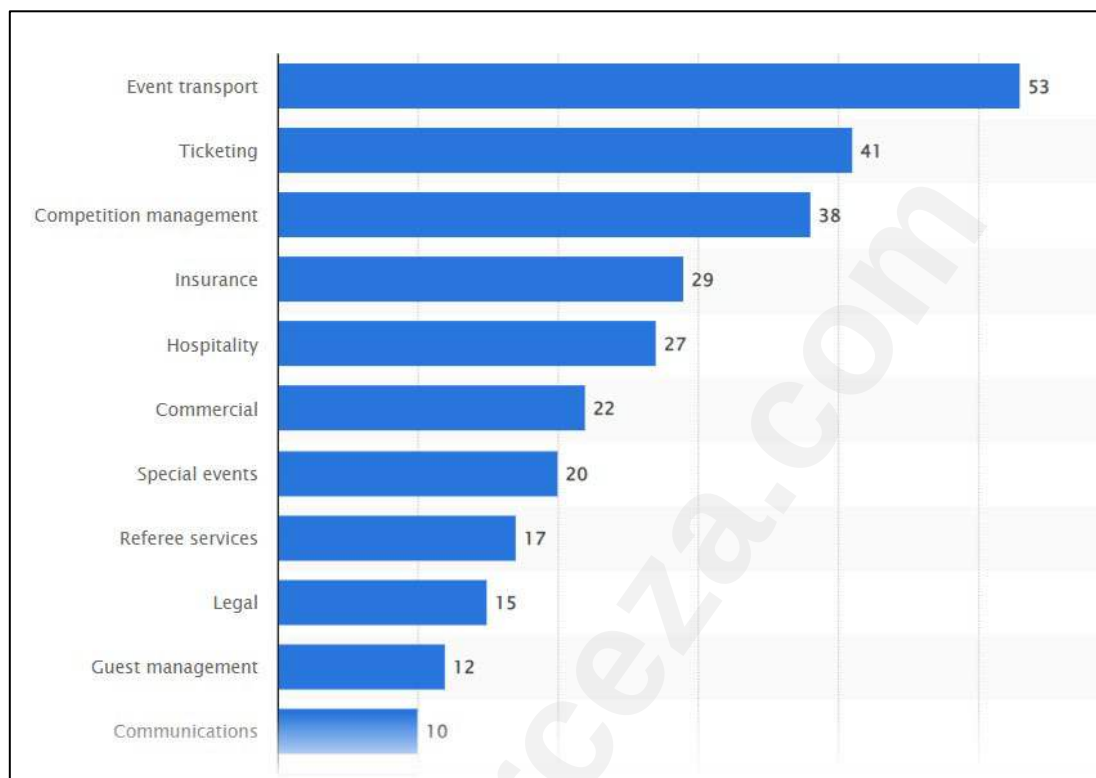
8.4.3 Name **ONE** other type of smart wear.

_____ (1)

[22]

QUESTION 9: INTEGRATED SCENARIO continued

9.1 The following graph shows the operational expenses of FIFA for Qatar 2022 World Cup (in millions of US Dollars) as of March 2021.



[Source: <https://www.statista.com/statistics/1298801/world-cup-qatar-fifa-operational-expenses/>]

9.1.1 Name **THREE** ways you could improve the visualisation of this graph.

Method 1: _____ (1)

Method 2: _____ (1)

Method 3: _____ (1)

9.1.2 Would a line chart been more effective than the bar chart? Justify your answer.

Yes No *Circle the correct answer.* (1)

Justification: _____ (1)

- 9.2 FIFA has developed the FIFA Player App that will allow all players to browse their performance data and access their analysis and information. The data will be synced with video of the action to allow for quick assessment of key moments.

[Source: <https://www.sabcnews.com/sabcnews/new-fifa-app-to-provide-world-cup-players-with-performance-data-analysis/>]

- 9.2.1 The app will also provide players with photographs from the matches which they can share on social media along with statistics and data.

Briefly describe **TWO** ways in which the players could transfer photos from the app to their social media sites.

Method 1: _____
_____ (1)

Method 2: _____
_____ (1)

- 9.2.2 Name **TWO** useful statistics that players could retrieve from the app.

Player statistic 1: _____
_____ (1)

Player statistic 2: _____
_____ (1)

- 9.2.3 The app is available on both the iOS and Android platforms. These are both popular operating systems.

- (a) Name **TWO** functions of an operating system.

Function 1: _____
_____ (1)

Function 2: _____
_____ (1)

- (b) Why is it necessary for the app to be available on both platforms?

_____ (2)

9.3 The FIFA organisers have used various types of software to market and prepare for the World Cup in November. In each of the following cases, choose the most suitable software.

4.2.1 Create a website for the World Cup.

_____ (1)

4.2.2 Record all players details, extract data and print results.

_____ (1)

4.2.3 Create a slideshow to present to the volunteers.

_____ (1)

4.2.4 Embed a logo into an image to be used on a website.

_____ (1)

4.2.5 Conduct online meetings with the FIFA Board members around the world.

_____ (1)

[18]

[SECTION C: 40 MARKS]

[GRAND TOTAL: 120 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]