



Computer Applications Technology

Grey High School

June 2019

COMPUTER APPLICATIONS TECHNOLOGY

Grade 10

Paper 2 – Written

TIME: 2 HOURS

MARKS: 100

Examiner: Mr M. Langenhoven

Moderator: Mrs L. Smith

This question paper consists of **11** pages (cover page included)

Instructions and information

1. This question paper consists of two sections: Section A (20 marks) and Section B (80 marks).
 2. Answer all the questions.
 3. Read the questions carefully, taking note of the mark allocations. In general, one mark is allocated per fact. A *two mark* question would therefore require *two facts*, and so on.
 4. Number the answers according to the numbering system used on this question paper.
 5. Leave a blank line after each sub-question.
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SECTION A

Question 1

Identify the correct answer for each question. Write down only the *number* of each question, and next to it the single *capital letter* which represents the best answer, for example 1.11 A.

- 1.1 Which one of the following storage devices has the largest capacity (can store the most data)?
- A. Blu-ray disc
 - B. Hard drive
 - C. Memory card
 - D. CD-ROM
- (1)
- 1.2 Which one of the following is not an example of a dedicated device?
- A. ATM machine
 - B. MP3 player
 - C. Smartphone
 - D. Digital alarm clock
- (1)
- 1.3 *wav* and *wma* are both examples of ...
- A. video files.
 - B. graphics files.
 - C. office files.
 - D. audio files.
- (1)
- 1.4 Which one of the following is not an example of open source software?
- A. LibreOffice
 - B. Microsoft Office
 - C. OpenOffice Base
 - D. Linux
- (1)

1.5 Which one of the following is not associated with monitors?
A. ZIF socket
B. LCD
C. VGA
D. 19" (1)

1.6 The size of text in a word processing document is measured in ...
A. words.
B. pixels.
C. inches.
D. points. (1)

1.7 Which one of the following is used to quickly create a list of months in a spreadsheet?
A. Copy and paste
B. Formatting
C. Auto Fill
D. Drag and drop

	A
1	January
2	February
3	March
4	April

(1)
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Question 2

State whether each of the following statements is TRUE or FALSE.

If the statement is FALSE, then write down the word 'False' and, next to it, the word(s) which should replace the underlined word(s) to make the statement TRUE.

(Note that no marks will be awarded if 'False' is given without a suggested replacement.)

Example 1: A printer is an example of an output device.
Answer: True

Example 2: A printer is an example of software.
Answer: False – hardware

- 2.1 A laser printer sprays microscopic dots of ink onto the paper. (1)
- 2.2 The Cutting Tool is a utility that allows one to capture screenshots. (1)
- 2.3 The root folder is the top level folder, which contains all the other folders on a drive. (1)
- 2.4 You can use the Delete key on the keyboard to cancel an option. (1)
- 2.5 A terabyte (TB) is 1024 x 1024 megabytes (MB). (1)

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Question 3

Write down only the *number* of the description from Column A, and next to it the correct matching *capital letter* from Column B, for example 3.11 R.

Column A	Column B
3.1 An operating system developed by the Apple company and found on their mobile devices	A. Creative Commons B. DIMM C. GUI D. EULA E. RAM F. Spinner G. Copyright H. ABSA I. ROM J. macOS K. OSS L. POS M. CPU N. iOS O. Motherboard P. EFT Q. Icon
3.2 The legal right to make copies and to publish and sell products	
3.3 A small 'picture' on the screen that provides quick access to a program or another 'place' on the computer	
3.4 A type of ICT system often found at pay points in shops	
3.5 A method of paying someone using the internet	
3.6 A type of memory chip that keeps its contents when the power is off	
3.7 A legally binding contract between the user and the software company that you need to agree to before installing and using their software	
3.8 The part of a computer that carries out instructions	

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SECTION B

Scenario

You have volunteered to assist at a Computer Fair on the school grounds, where your task will be to help the CAT teacher, Mrs Kelly, to set up the equipment and to answer visitors' questions at the various stands.

Question 4 – Hardware (1)

4.1 Give ONE advantage of using laptops at the Fair, rather than desktop computers. (1)

4.2 One of the information posters displayed the term QWERTY.

What hardware device does this refer to? (1)

4.3 A portable hard drive was connected to a port that uses plug-and-play.

4.3.1 Name the type of port to which the hard drive was most likely connected. (1)

4.3.2 What is the general benefit of using plug-and-play technology? (1)

4.4 Give your opinion on whether cabled or wireless mice should be used at the Fair.

Give TWO reasons to motivate your choice, except anything that has to do with the initial cost. (2)

4.5 One of the monitors used has the following specifications:

- 1920 x 1080
- 6 milliseconds
- HDMI

4.5.1 Name the unit in which the 1920 x 1080 specification is measured. (1)

4.5.2 Name, or describe, the specification to which '6 milliseconds' refers. (1)

4.5.3 Briefly explain the function of the HDMI specification (what this 'does'). (1)

4.5.4 Give ONE important specification of a monitor that does not appear in the specifications above. (1)

4.6 Visitors can get printouts of 'selfies' at the printer stand.

4.6.1 Give ONE advantage and ONE disadvantage of using an inkjet printer rather than a laser printer to make these printouts.

Clearly distinguish between the advantage and the disadvantage in your answer. (2)

4.6.2 A laser printer and an inkjet printer are connected to a computer.

What would the user need to do, to ensure that print tasks are automatically sent to the inkjet printer, instead of to the laser printer? (1)

4.6.3 Give ONE example of a situation in which the user might need to access the *printer queue*. (1)

- 4.7 Users often store documents on the C: drive of their computers.
What type of drive is the C: drive? (1)
- 4.8 Some of the keyboards have a 'curved' shape and come with wrist and palm rests.
Name the medical condition that keyboards with features such as those described above are designed to try to prevent. (1)
- 4.9 A large empty bin marked as follows has been provided for use by visitors:

<p>Do your bit for GREEN COMPUTING</p> <p>Place e-waste here</p>
--

- 4.9.1 Briefly describe what visitors will be expected to place in this bin. (1)
- 4.9.2 Give ONE other way in which people can practise green computing, besides dealing with e-waste responsibly. (1)

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Question 5 – Hardware (2)

- 5.1 Different types of input devices will be demonstrated at the Fair.
- 5.1.1 Name ONE pointing device that could be used by people who lack fine motor control over their fingers. (1)
- 5.1.2 Name the pointing device used together with a digitising tablet to draw very accurately on a computer. (1)
- 5.1.3 What is the function of an *accelerometer* in a mobile device? (1)
- 5.1.4 Give ONE example of a gaming device that functions as both an input and an output device. (1)
- 5.2 Mrs Kelly will take photos of the stands with her smartphone and store them 'in the cloud'.
- 5.2.1 What does storing files 'in the cloud' mean? (1)
- 5.2.2 Describe TWO benefits of storing files 'in the cloud', as opposed to storing them only on the local device (such as the smartphone in this case). (2)
- 5.2.3 The camera on Mrs Kelly's smartphone can take photos at a resolution of 12 MP (megapixels).
Give ONE advantage and ONE disadvantage of taking the photos at 3 MP resolution. (2)

5.3 Various scanning devices and technologies will be demonstrated at the Fair.

5.3.1 What is the basic function of any scanner? (2)

5.3.2 Explain why a *flatbed scanner* is generally more useful than a *sheet-fed scanner*. (1)

5.3.3 Name the type of code shown below.



(1)

5.3.4 Consider the barcode shown below and answer the questions that follow.



(a) Give TWO general advantages of using a barcode system, over other (manual) methods of data entry. (2)

(b) Suppose the barcode itself (the pattern of black lines) were damaged and the barcode could not be scanned.
Name another device that could be used to enter the data into the computer. (1)

(c) Name a radio technology that uses small 'chips' or 'tags' to store and transmit data, and that could one day replace the use of barcodes. (1)

5.3.5 Mrs Kelly has a fingerprint scanner built into her laptop computer.

Name the type of security which the fingerprint scanner represents, and explain why this type of security is more secure than the use of passwords. (2)

5.4 Someone recorded a video on their video camera.

Briefly explain how the video could be transferred to a computer, without using a cable. (1)

5.5 Give ONE advantage of a multi-function printer, over having separate devices for the different functions.

Do not mention cost in your answer, and do not refer to the different functions of a multi-function printer. (1)

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Question 6 – Software

6.1 All computers must have an operating system.










6.1.1 Give TWO broad functions of an operating system. (2)

6.1.2 Name ONE example of an operating system for a desktop computer, besides the Windows range. (1)

6.2 Presentation software has been used to create a slide show about the Fair.

Give ONE example of a presentation software package. (1)

6.3 The files listed in the screenshot below were found on one of the computers. Study the screenshot and answer the questions that follow.

Name	Date modified	Size
 File A.MP3	02/07/12 5:05 PM	5,350 KB
 File B.EXE	05/06/02 4:42 PM	229 KB
 File C.TXT	24/03/19 9:46 AM	1 KB
 File D.PNG	04/03/19 10:51 AM	74 KB
 File E.RAR	08/04/19 12:14 PM	608 KB
 File F.PDF	17/02/19 4:48 PM	102 KB
 File G.HTML	19/03/19 12:22 PM	1 KB
 File H.MPEG	08/01/15 8:50 PM	145,660 KB
 File I.DOCX	02/04/19 11:06 AM	20 KB

6.3.1 Which ONE of the files above has been compressed, using file compression software. (Write down just the file name, e.g. **File Z**.) (1)

6.3.2 Which ONE of the files above can be opened and edited in the **Paint** program? (1)

6.3.3 Which ONE of the files above is an actual program, i.e. not a data file? (1)

6.3.4 Which ONE of the files above is a web page? (1)

6.3.5 What type of file is the MPEG file (**File H** above)? (1)

6.3.6 What is the main reason for using the file format in which **File F** has been saved? (1)

6.4 Explain why one would typically use the 'Open with' command instead of the 'Open' command to open a file (in File Explorer). (1)

6.5 Mrs Kelly created the document **Guidelines.docx** on her laptop, which has the latest version of *Word* installed.

Give ONE thing she can do to ensure that users who have an earlier version of *Word* on their computer will be able to open the *Word* document. (1)

- 6.6 Mrs Kelly has a single user license for a program that she wishes to install on all the computers.
Briefly describe TWO other licensing options that would allow her to legally install the program on all the computers. (2)
- 6.7 A backup utility program, that was obtained free of charge, suddenly stopped working 30 days after it was installed.
- 6.7.1 Name the category of software that allows one to 'try out' the software for a trial period (such as 30 days). (1)
- 6.7.2 What would one need to do, to be able to continue using the software after the trial period had expired? (1)
- 6.7.3 Why is it not necessary to back up the operating system? (1)
- 6.7.4 Explain why backups should be made on portable storage instead of on the computer's hard drive. (1)
- 6.8 Mrs Kelly needs to make some changes to a policy document which currently exists only in hardcopy (printed) format.
- 6.8.1 Name both the hardware device and the type of software she will need in order to convert the hardcopy to a document that can be edited in a word processor. (2)
- 6.8.2 All hardware devices need a *driver* to work.
What is the function or purpose of a driver? (1)

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Question 7 – Networks

A network will be set up at the Fair.

- 7.1 Give ONE example of a hardware item that can be shared on a network, besides a printer. (1)
- 7.2 What do we call a computer in a network that provides shared resources such as files? (1)
- 7.3 Give TWO benefits of storing data centrally (i.e. on a single computer) in a network. (2)
- 7.4 Suggest a suitable electronic communication method that Mrs Kelly could use to send a message to anyone who might wish to come to the Fair. (1)

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Question 8 – Information Management

8.1 Consider the question below which appeared in a questionnaire about the Fair, and answer the questions that follow.

<p>Indicate your preferred ‘take-away’ food from the list below (Tick ONE box)</p> <p><input type="checkbox"/> Toasted sandwich</p> <p><input type="checkbox"/> Hamburger</p> <p><input type="checkbox"/> Hot Dog</p> <p><input type="checkbox"/> Wrap</p> <p><input type="checkbox"/> OTHER</p>

8.1.1 Explain why the question above is an example of a *closed* question. (1)

8.1.2 Give the advantage of asking *closed* types of questions in a questionnaire, from the point of view of the person who is conducting the questionnaire. (1)

8.1.3 Suggest how the last option in the question above (‘OTHER’) can be improved upon (changed), so that better quality information can be obtained from the questionnaire. (1)

8.2 Give ONE other way of obtaining information from people, besides using a questionnaire or any electronic means. (1)

8.3 Mrs Kelly is researching information on the history of computing.

8.3.1 Name the most popular online encyclopaedia. (1)

8.3.2 Give ONE general advantage of using printed media for research, instead of using the internet. (1)

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Question 9 – Solution Development

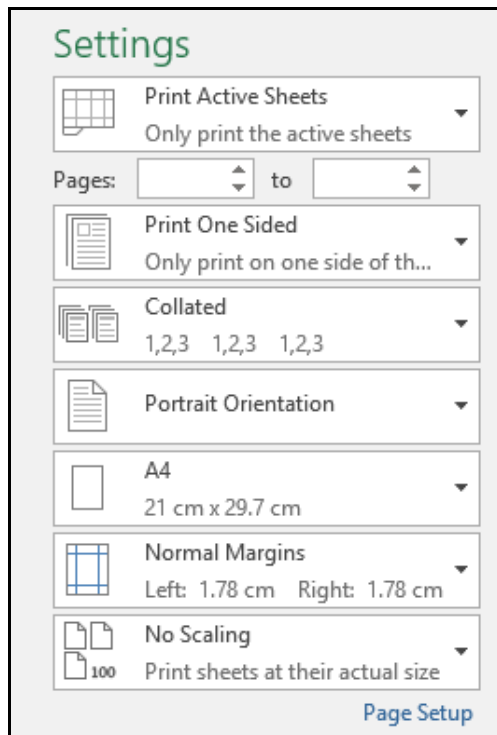
Some people will have questions about working with programs in the MS Office suite.

9.1 Identify TWO poor word processing techniques or ‘mistakes’ in the extract from a *Word* document below. (Do NOT describe how to fix the mistakes.)

<p>.....School-Improvements¶</p> <p>Without-the-dedication-and-hard-work-of-various-members-of-¶ our-School-Team,-nothing-progressive-would-actually-be-done-¶ at-the-school-But-thanks-to-the-calibre-of-our-people,-a-number-¶ of-improvements-have-been-carried-through-over-the-years.¶</p>

(2)

- 9.2 Give ONE potential drawback of using the *Page Color* facility in a *Word* document. (1)
- 9.3 Give ONE benefit of using styles to format a long document. (1)
- 9.4 Assume a document contains a paragraph in German.
What must you do to ensure that none of the German words are indicated as spelling mistakes by *Word's* built-in spell checker? (1)
- 9.5 Give TWO ways in which you can try to make part of an *Excel* worksheet fit on a single page when it is printed. (2)



(2)

9.6 Study the screenshot of a spreadsheet below, which gives the results of a 10 kilometre road race, and answer the questions that follow.

	A	B	C
1	10 Kilometre Road Race		
2	Athlete	Minutes	Average Speed (mins per km)
3	Naydon	37	3.7
4	Matthew	44	
5	Lefty	39	
6	Jabu	42	
7	Edward	46	
8	Carlos	38	
9	Angelo	34	
10	Andri	36	

9.6.1 The formula $=37/10$ was entered in **cell C3**. It correctly calculates the average speed of the athlete *Naydon* (3.7 mins per km).

What change must be made to the formula in **cell C3**, so that it can be copied to **cells C4:C10** to automatically calculate the average speeds of the other athletes? (You can just write down the correct formula.) (1)

9.6.2 Suppose the average speeds of all the athletes have been calculated.

Give just the name of the function that can be used to calculate the fastest average speed. (1)

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TOTAL: 100