

**June 2017**

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**COMPUTER APPLICATIONS TECHNOLOGY**  
**Grade 10**  
**Paper 2 – Written**

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*TIME: 2 HOURS*

*MARKS: 100*

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This question paper consists of **10** pages (cover page included)

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## 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 is NOT an element in the information processing cycle?  
A. Processing  
B. Input  
C. Communication  
D. Booting (1)
- 1.2 Which one of the following does not logically belong with the others?  
A. Internet Explorer  
B. Ubuntu  
C. macOS Sierra  
D. Windows 10 (1)
- 1.3 Which one of the following refers to a 'sequence' of folders that leads to the location of a specific file?  
A. Hierarchy  
B. Path  
C. File extension  
D. Subfolder (1)
- 1.4 Which one of the following statements about ICT systems is FALSE?  
A. Data can be sent for processing as it is collected.  
B. The user is an important part of an ICT system.  
C. Debiting bank accounts is one of the processes in a POS system.  
D. The use of ICT increases the need for resources such as paper. (1)

- 1.5 Which one of the following is NOT associated with moving text in a word processor?
- A. Clipboard
  - B. Paste
  - C. <Ctrl><C>
  - D. Keep Text Only (1)
- 1.6 Which one of the following refers to an icon on the desktop that has a small curved arrow in the bottom left corner?
- A. Tooltip
  - B. GUI
  - C. 'Live' tile
  - D. Shortcut (1)
- 1.7 Which one of the following represents the smallest amount of storage?
- A. 1 024 kilobytes
  - B. 1 000 000 bytes
  - C. 2 megabytes
  - D. 1 gigabyte (1)
- [7]**

## 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.)

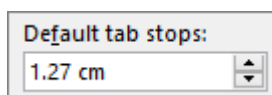
**Example 1:** A printer is an example of an output device.

Answer: True

**Example 2:** A printer is an example of software.

Answer: False – hardware

- 2.1 The taskbar in Windows programs shows the name of the file and the program you are working in. (1)
- 2.2 The Windows key takes a 'photo' of everything on the screen and puts it on the clipboard. (1)
- 2.3 The Windows control pictured below is an example of a spinner. (1)



- 2.4 WinRAR is a utility program that compresses and decompresses files. (1)
- 2.5 ATM is a way of making payments via the internet. (1)

**[5]**

### 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 T.

Column A	Column B
3.1 A legal agreement that describes what one may and may not do with a software package	A. Trackball
3.2 A sensor found on a mobile device such as a smartphone	B. DIMMs
3.3 A shortcut key used to undo an action	C. iOS
3.4 An input device used together with a pressure-sensitive digitising tablet	D. Copyright
3.5 A type of software used to convert images of text into text that can be edited in a word processor	E. A15
3.6 A data value interpreted by <i>Excel</i> as a numerical value	F. <Ctrl><Y>
3.7 An example of a dedicated device	G. Smartphone
3.8 A type of memory that holds the instructions needed to start the computer when you switch it on	H. GUI
	I. iPod
	J. ROM
	K. Electronic compass
	L. Stylus
	M. <Ctrl><Z>
	N. EULA
	O. MICR
	P. 18 Feb
	Q. OCR

[8]

## SECTION B

### Scenario

*Your uncle has asked you to help him on Saturday mornings at his computer shop. There is also an internet café section consisting of 4 networked computers, which people can use to browse the web and check their emails, and an e-waste disposal counter where people can drop off unused and broken electronic equipment for recycling.*

### Question 4 – Hardware (1)

Study the specifications in the advertisement for a computer and answer the questions that follow:

15.6" Full HD (1920 x 1080) display  
Intel Core i7 up to 3.5 MHz  
16 GB RAM  
1 TB hard drive  
No optical drive  
Fingerprint reader  
Bluetooth, 2 x USB, 1 x HDMI  
Built-in card reader  
4 Cell battery  
Windows 10 Home

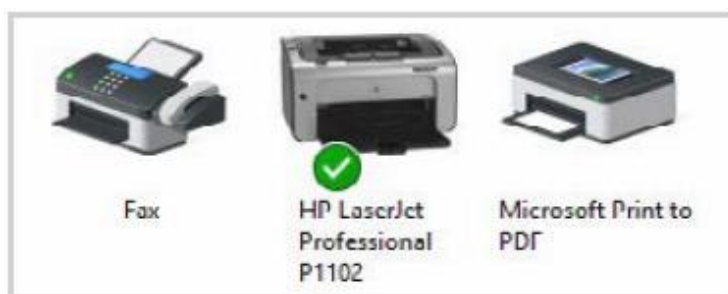
- 4.1 Briefly explain how (and in what unit) the size of a monitor is measured. (2)
- 4.2 What specification of a monitor do the numbers 1920 x 1080 refer to? (1)
- 4.3 Give the common term for the item referred to in the 'Intel Core i7' specification. (1)
- 4.4 Could an external hard drive be connected to this computer? Motivate your answer with reference to the specifications. (1)
- 4.5 What is the name of the piece of hardware inside the computer case, that allows all the parts of the computer (RAM, hard drive, USB ports, etc.) to communicate with each other? (1)
- 4.6 Why does this computer (and every computer) need so much more storage than memory? Motivate your answer by referring to the different role that each of these performs in the functioning of a computer. (2)
- 4.7 Give TWO differences between memory and storage, in terms of cost and speed. (2)
- 4.8 Give ONE reason why optical drives are no longer generally being used. (1)
- 4.9 Give the general name of the type of identification offered by the Fingerprint reader, and explain why this type of security is stronger ('better') than using passwords. (2)
- 4.10 Which peripheral device connects to the computer via the HDMI port? (1)
- 4.11 Give ONE advantage of using a card reader, instead of Bluetooth or a cable, to transfer pictures from a digital camera to a computer. (1)

- 4.12 What is the term for the series of technologies that allows one to insert a device into a USB port, and then to use the device almost immediately? (1)
- 4.13 Give the name of the type of pointing device that is most likely supplied with this computer. (1)
- 4.14 The specification of one of the items is obviously incorrect. Write down the correct specification of the item. (1)

**[18]**

### Question 5 – Hardware (2)

- 5.1 Gamers are advised to use a separate graphics card (not the built-in one) in their computer, for the best gaming experience.
- 5.1.1 Briefly explain the reason for this. (1)
- 5.1.2 Which specification of a monitor is very important for a gamer, to ensure that the images in fast-moving games do not blur or lag (ghost). (1)
- 5.2 Parents sometimes seek advice on which type of printer they should purchase, that can be used by their children for school projects, and for general home use.
- 5.2.1 Give ONE reason why a laser printer might be the best choice for them, apart from any reasons relating to the quality of printouts or cost. (1)
- 5.2.2 In some cases you recommend that they purchase a multi-function printer. List TWO advantages of multi-function printers, besides the fact that they provide a number of functions rolled into one. (2)
- 5.2.3 Give the common term for the piece of software that allows a computer to communicate with hardware such as a printer. (1)
- 5.2.4 What does a 'tick' displayed on a printer icon (in the Control Panel) indicate, as shown below?



- 5.3 A customer who works in the entertainment industry said that his hard drive was running out of space, and he wished to purchase an external hard drive.
- 5.3.1 Which type of files were most likely causing the drive to run out of space? (1)
- 5.3.2 Give ONE potential advantage of an external hard drive for the customer, besides the fact that it would solve the 'running out of space' problem. (1)

- 5.4 Your uncle complains that his wrists become sore whenever he does a lot of typing.
- 5.4.1 What is the name of the medical condition that your uncle might be suffering from, that is affecting his wrists in this way? (1)
- 5.4.2 Give TWO other general health tips for using computers, besides the use of ergonomically designed equipment. (2)
- 5.5 A poster with tips on how to use computers in an environmentally friendly way must be put up at the e-waste disposal counter.
- 5.5.1 What is the general term for using computers in an environmentally friendly way? (1)
- 5.5.2 Briefly explain why e-waste should not simply be thrown into rubbish bins. (1)
- 5.5.3 Give TWO tips to be included on the poster, on how to use less paper. (2)
- 5.6 Wireless mice and keyboards are very popular.
- 5.6.1 Give ONE reason for the popularity of wireless devices, as opposed to wired devices. (1)
- 5.6.2 Wireless mice and keyboards sometimes stop responding (working), for no apparent reason.  
Give ONE possible reason for this. (1)
- 5.7 Various scanning technologies are used in the shop.
- 5.7.1 The code shown below is attached as a label to articles sold in shops. Give TWO advantages of the scanning technology used with such labels, over other 'manual' input methods. (2)



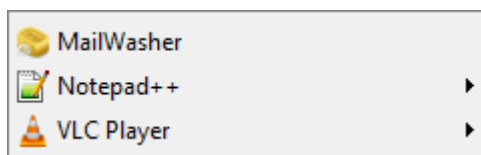
- 5.7.2 Sometimes the black lines on this label are damaged and cannot be read by the scanning device.  
Which other input device could be used to capture the numerical code? (1)
- 5.7.3 Give the name of the type of code pictured below, and give ONE type of information that is commonly found in such a code. (2)



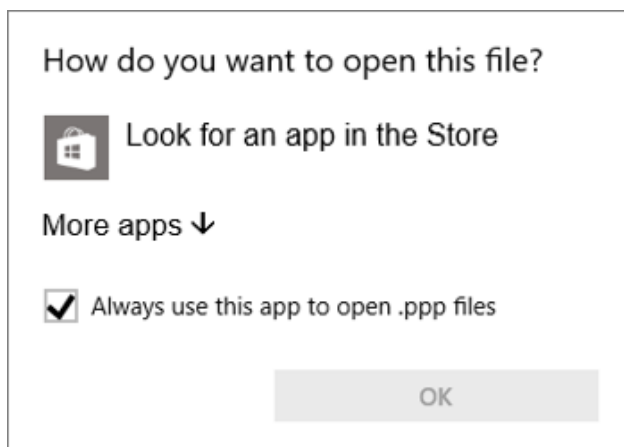
- 5.8 A disabled man bought screen-reading software, to help him overcome his disability when using a computer.
- 5.8.1 What type of disability is the man suffering from, in this context? (1)
- 5.8.2 What output device would be needed to make this software work? (1)
- 5.9 The shop sells different types of gaming devices.
- Name ONE type of gaming device, besides a joystick. (1)
- [26]**

## Question 6 – Software

- 6.1 Every computer sold in the shop has a pre-installed operating system.
- 6.1.1 Briefly explain why every computer must have an operating system, by referring to TWO functions of an operating system. (2)
- 6.1.2 Which popular operating system has versions with the nicknames Lollipop, Marshmallow and Nougat? (1)
- 6.2 Customers sometimes want a demonstration of the Windows desktop and menu system.
- 6.2.1 Why are certain tiles (icons) on the desktop called 'live' tiles? (1)
- 6.2.2 Explain the significance, or meaning, of the arrows pointing to the right in the following screenshot of a menu system:



- 6.3 When you tried to open a certain file, the following dialog box appeared:



- 6.3.1 What is the most likely 'problem' with the file you were trying to open? (1)
- 6.3.2 If you knew the file was a video, outline ONE way in which you could try to open the file, without following any of the suggestions offered in the dialog box. (1)
- 6.3.3 Give the name of a utility program, included with the operating system, that you could use to 'capture' or copy this screenshot. (1)



- 6.4 Your uncle cannot find a file called STARLITE.PNG on his computer.
- 6.4.1 What *type* of file is this? (1)
- 6.4.2 Give TWO tips on planning a logical folder structure. (2)
- 6.4.3 Your uncle finally found the file, but then he deleted it by mistake!  
Name the special folder on the desktop that he could use to recover the file. (1)
- 6.5 A CAT teacher bought a Math Tutor software package, which he then licensed under a site license.  
Briefly explain what a site license agreement is, in terms of the number of computers on which the software may be installed. (2)
- 6.6 Your uncle is often asked about different categories of software.
- 6.6.1 Briefly explain what *shareware* is. (2)
- 6.6.2 Give the name of a category of software, besides shareware and open source software, that you can obtain without paying for it and install as often as you like. (1)
- 6.6.3 Give TWO potential disadvantages of open source software. (2)
- 6.7 Briefly explain why your uncle is correct in never backing up his program files, such as *Word* and *Excel*. (1)
- [20]**

### Question 7 – Networks

- 7.1 Your uncle uses various digital communication methods to stay in touch with suppliers.  
Name ONE such method, besides instant messaging. (1)
- 7.2 The computer in your uncle's office acts as a server.  
What is the main function of a server in a network? (1)
- 7.3 Customers who use the internet café are advised to save any files they create in the 'cloud'.
- 7.3.1 Give ONE advantage of saving files in cloud storage. (1)
- 7.3.2 Give ONE example of a cloud storage service. (1)
- 7.4 Briefly discuss ONE potential disadvantage of having a network, besides any issues related to hardware or software on the network, or to cost. (1)
- [5]**

## Question 8 – Information Management

8.1 Your uncle worked out that an average of 65 people visit the shop each day in the month.

Briefly explain why this number (i.e. 65) represents a piece of information rather than a piece of data. (1)

8.2 Your uncle wants to find out why people buy external hard drives.

8.2.1 Explain why the following question, which he asked in a questionnaire, is an example of a *closed* question:

How many people in your household own a computer?  
(Tick the appropriate box)

1 ☐ 2 ☐ 3 ☐ 4 ☐ more ☐

(1)

8.2.2 Explain why it is generally better to create a questionnaire in such a way that the respondent has to select an answer (as above), instead of having to fill one in. (1)

8.2.3 Some information on this topic can also be obtained from a wiki, such as Wikipedia.

Briefly explain what a wiki is. (2)

[5]

## Question 9 – Solution Development

*Processing orders requires good skills in working with the Microsoft Office packages.*

9.1 Give ONE reason for using the Save As command, rather than the normal Save command, when saving an existing document. (1)

9.2 The keyboard shortcut <Ctrl><X> is frequently followed by the <Ctrl><V> shortcut.

What editing action is performed by this combination of shortcuts? (1)

9.3 Explain why it is important to take care, when adding a word to *Word's* built-in dictionary, that the word you are adding has the correct spelling? (1)

9.4 Give ONE economic reason (reason from a cost perspective) for not changing the default page colour (white) of a *Word* document. (1)

9.5 Give ONE reason why one must sometimes use the Tabs dialog box when setting tab stops in a *Word* document, rather than just using *Word's* Ruler? (1)

9.6 What can you do to make an *Excel* worksheet fit on one page when you print it, besides reducing the font size? (1)

[6]

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**TOTAL: 100**