

June 2017

COMPUTER APPLICATIONS TECHNOLOGY

Grade 10

Paper 2 – Written

MEMORANDUM

TIME: 2 HOURS

MARKS: 100

This memorandum consists of **7** pages (cover page included)

SECTION A

Question 1

1.1	1.2	1.3	1.4	1.5	1.6	1.7
D	A	B	D	C	D	B

✓

✓

✓

✓

✓

✓

✓

[7]

Question 2

[Note: Accept correct answers even if 'False' is not stated]

2.1 False – Title bar ✓ (1)

2.2 False – Print Screen / PrtScn / PrtScr / PrntScr ✓ (1)

2.3 True ✓ (1)

2.4 True ✓ (1)

2.5 False – EFT / Electronic Fund Transfer ✓ (1)

[5]

Question 3

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8
N	K	M	L	Q	P	I	J
EULA	Electronic compass	<Ctrl><Z>	Stylus	OCR	18 Feb	iPod	ROM

✓

✓

✓

✓

✓

✓

✓

✓

[8]

SECTION B

Question 4 – Hardware (1)

- 4.1 Diagonally [*also accept suitable description of this*] ✓
in inches ✓ (2)
- 4.2 Resolution ✓ (1)
- 4.3 CPU / central processing unit / processor ✓ (1)
- 4.4 Yes – there are USB ports [*do not accept just 'Yes'*] ✓ (1)
- 4.5 Motherboard / Mainboard / System board ✓ (1)
- 4.6 Storage is needed to hold all apps and data even when computer is off, i.e. permanently ✓
Memory is needed to hold apps and data currently being worked on, i.e. temporarily ✓ (2)
- 4.7 TWO difference (only in terms of cost & speed):
• Memory / RAM is more expensive than storage (costs more per GB than storage) ✓
• Memory / RAM is faster than storage ✓ (2)
- 4.8 Any ONE reason of: ✓
• Slow
• Unreliable / easily scratched and damaged
• Low capacity
• Some modern computers (especially portable ones like laptops) no longer have optical drives
• Being replaced by more efficient portable media (e.g. portable hard drives and flash drives)
• Media content and apps now distributed and downloaded via the internet (1)
- 4.9 Biometric ✓
Because linked (unique) to a specific person / cannot be shared between people ✓ (2)
- 4.10 Monitor / screen / display (device) ✓ (1)
- 4.11 Any ONE advantage of: ✓
• Conserves battery power of digital camera
• No need to install special software
• Digital camera does not have to be near or directly connected to the computer (1)
- 4.12 Plug-and-play ✓ (1)
- 4.13 Touchpad [*Also accept pointing stick*] ✓ (1)
- 4.14 3.5 GHz ✓ (1)

[18]

Question 5 – Hardware (2)

- 5.1.1 Built-in graphics circuitry uses some of the PC's memory (to hold the images for display), *and relies on the PC's CPU to perform the necessary processing*, leaving less memory for computer games etc. / Separate graphics cards come with own (GPU and) memory ✓
[Note: fuller answer includes reference to GPU (graphics processing unit) as well – text in italics above – but accept answers expressed only in terms of MEMORY] (1)
- 5.1.2 Response time ✓ (1)
- 5.2.1 Any ONE reason (besides quality of printouts & cost) of: ✓
• Generally prints faster than e.g. inkjet printers
• More reliable – e.g. does not have ink that can dry out
• Easier to maintain than e.g. inkjet printers (1)
- 5.2.2 Any TWO advantages (besides different functions) of: ✓✓
• Save desk space
• Need just one USB port on computer
• Cost less than buying pieces of equipment separately (2)
- 5.2.3 Driver ✓ (1)
- 5.2.4 Default printer / the one that printouts will be sent to, unless one chooses otherwise ✓ (1)
- 5.3.1 Video clips / music files / photos – i.e. media files ✓ (1)
- 5.3.2 Any ONE advantage (besides extra storage) of: ✓
• Mobile / portable storage – can carry data around with you
• Can be used as a backup medium (1)
- 5.4.1 RSI (repetitive strain injury) / CTS (carpal tunnel syndrome) ✓ (1)
- 5.4.2 Any TWO tips (besides use of ergonomically designed equipment) of: ✓✓
• Take regular breaks
• Make sure mouse & keyboard are comfortably situated (within easy reach) – never strain to reach them / never use them in an awkward position
• Sit up straight / don't slouch or hunch
• Adjust your seat so that you sit correctly
• Perform appropriate (hand & wrist) exercises
• Learn (and use) keyboard shortcuts
[Do not accept any answers NOT related to prevention of RSI (e.g. lighting / ventilation)] (2)
- 5.5.1 Green computing ✓ (1)
- 5.5.2 Contains poisonous, environmentally harmful chemicals / components ✓ (1)
- 5.5.3 Any TWO tips of: ✓✓
• Proofread on screen
• Print 2 (or more) pages on 1 sheet
• Print back-to-back
• Print only when absolutely required / work with digital copies rather than hard copies (2)
- 5.6.1 Any ONE reason of: ✓
• Less clutter / no cables
• Wider range of movement (1)
- 5.6.2 Any ONE reason of: ✓
• Weak / dead battery
• Signal interference (1)
- 5.7.1 TWO advantages: ✓✓
• Faster than manual input methods
• More accurate / less (no) mistakes (2)
- 5.7.2 Keyboard ✓ (1)
- 5.7.3 QR code / quick response code ✓
Web address / URL / opens a web page ✓ (2)
- 5.8.1 He suffers from bad vision ✓ (1)
- 5.8.2 Speakers / headphones / earphones ✓ (1)
- 5.9 Any ONE type of: ✓
• Game controller
• Steering wheel (1)

Question 6 – Software

6.1.1 Any TWO functions of: ✓✓

- Manages all hardware and software
- Maintains security (with use of passwords, sharing and access rights, etc.)
- Provides a user interface / a means for humans to interact with the software

[Also accept suitable examples of the above, e.g. 'loading file from disk' for 1st point] (2)

6.1.2 Android ✓ (1)

6.2.1 They update and change their display information (e.g. the Weather tile) ✓ (1)

6.2.2 They indicate further sub-menus ✓ (1)

6.3.1 The file extension is not recognised by the operating system / 'computer' ✓ (1)

6.3.2 Any ONE way (besides suggestion in dialog box) of: ✓

- Change file extension (manually) to another known video file extension (e.g. MOV, AVI, MP4)
- Try to use a file/media converter program
- Source a suitable app from any location other than by downloading it from the 'Store', e.g. from a Freeware or Shareware repository / other online source / buy from a shop

(1)

6.3.3 Snipping Tool ✓ (1)

6.4.1 Graphics / image file ✓ (1)

6.4.2 Any TWO tips of: ✓✓

- Plan the basic folder structure: sketch on paper / use SmartArt (hierarchy charts), etc.
- Think first of the main folders, then add subfolders as required
- Keep on refining each level / create further subfolders (if too many files in one folder)
- Use meaningful names for files and folders
- Replicate folder structures, if files are moved between computers (e.g. school & home)

(2)

6.4.3 Recycle Bin ✓ (1)

6.5 Can install the software on any number of computers, ✓

but only within the school / company / organization ✓ (2)

6.6.1 Shareware is software that can be used for a trial period (usually 30 days), and/or has certain restrictions or limitations. ✓

If you want to continue using the software (after the trial period has expired), and unlock any restrictions or limitations that are in place, you must pay a (once-off) fee. ✓ (2)

6.6.2 Freeware ✓ (1)

6.6.3 Any TWO potential disadvantages of: ✓✓

- No guarantee of quality or that it works correctly
- The installation files (internet downloads) can be quite large, so this can be a problem for people with slow connections or limited data
- [Do not accept '(generally) only obtainable from the internet' without the above caution, as 'obtainable from the internet' is actually an advantage today]
- Not as widely used (more people use Windows products as opposed to OSS), so more user training may be needed
- Program / data files may not be compatible with other systems
- Documentation and support for OSS may not be easy to access
- Often many different versions of same product / could work and look differently on another computer

(2)

6.7 Program files can be reinstalled if necessary (from disk, or by internet download) ✓ (1)

[20]

Question 7 – Networks

- 7.1 Any ONE method (besides instant messaging) of: ✓
- Email
 - SMS
 - Social networks [*Accept specific examples, e.g. WhatsApp, Facebook Messenger*] (1)
- 7.2 Provides resources and services to other computers on the network ✓ (1)
- 7.3.1 Any ONE advantage of: ✓
- Accessible from anywhere on any device (with internet access)
 - Synching – always have the most up-to-date version of a file
 - Easy to share files with other people
 - Backup and security managed by the storage provider (1)
- 7.3.2 Any ONE example of: ✓
- OneDrive
 - Dropbox
 - Google Drive, etc. (1)
- 7.4 Fairly open-ended: accept arguments based on the need to communicate safely (e.g. on social networks), the risk of violation of privacy, the possibility of confidential information being 'leaked' if not properly secured, etc. ✓ (1)

[5]

Question 8 – Information Management

- 8.1 Some kind of processing had to be carried out to arrive at the number 65 (e.g. divide total number of people who visit the shop in a month, by 31) ✓

[Accept any suitable explanation that includes the concept of processing] (1)

- 8.2.1 Can be answered with a single number / 'tick' ✓ (1)

- 8.2.2 Easier / quicker to process such data (capture and analyse the data) by using a computer ✓ (1)

- 8.2.3 Website ✓
Where people can work together (collaborate) to create and edit web pages ✓ (2)

[5]

Question 9 – Solution Development

- 9.1 Any ONE reason of: ✓
- Save document under a new name
 - Save document in a different location (computer / drive / folder)
 - Ensure that an existing document in storage is not overwritten (1)
- 9.2 Moving (text / any object) ✓ (1)
- 9.3 *Word* will assume this is the correct spelling for all future uses of the spell checker ✓ (1)
- 9.4 If such a document is printed it will use a lot of ink / toner, i.e. be expensive to print ✓ (1)
- 9.5 Any ONE reason of: ✓
- When you want to set tab stops with leaders
 - When you want to set a tab stop at a specific position (1)
- 9.6 Any ONE method (besides reducing font size) of: ✓
- Decrease margins
 - Decrease column widths
 - Change orientation to landscape (1)
- [6]

TOTAL: 100