Study Opportunities

November 2013

COMPUTER APPLICATIONS TECHNOLOGY
Grade 11
Paper 2 – Written
MEMORANDUM

TIME: 3 HOURS   *MARKS: 150*

This memorandum consists of 10 pages (cover page included)

Question 1:

1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
C ✔	D ✔	D ✔	A ✔	D ✔	B ✔	B ✔	D ✔	C ✔	C ✔

[10]

Question 2:

2.1   True ✔ (1)

2.2   False ✔ WLAN or Wireless LAN ✔ (2)

2.3   False ✔ GB or TB ✔ (2)

[5]

Question 3: Matching Items

3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10
S	H	N	O	P	I	D	Q	M	J
3G ✔	UTP ✔	VoIP ✔	RSS ✔	URL ✔	RFID ✔	OCR ✔	HDMI ✔	FTP ✔	NIC ✔

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Question 4

4.1.1 The use of unique physical characteristics of human beings ✔ (e.g. fingerprints), to identify a person. ✔ (2)

4.1.2 Any ONE of: ✔

- Difficult to bypass because tied to a single person
- Tied to a single person so cannot be used by others, etc. (1)

4.2   Any TWO of: ✔✔

- Speed (PPM)
- Resolution/quality (DPI)
- Monthly Duty Cycle etc.

Note: Do not accept answers related to paper size or colour or non-technical parameters such as make, warranties, after-sales-service and cost. (2)

4.3   Any TWO of: ✔✔

- Don't sit for long periods/take breaks
- Sit comfortably, do not stretch / strain
- Learn keyboard shortcuts
- Do exercises
- Don't use headphones to drown out surrounding sound
- Reduce glare from the monitor
- Have a well-lit work area
- Have adequate ventilation, etc. (2)

4.4   Any TWO of: ✔✔

- Low capacity
- Slow to back up to
- Less reliable than external hard drives, etc.   (2)

4.5.1 Backing up a file makes copy of the file. ✔

Archiving a file means moving the file (not a copy) to another (secondary) system. ✔

Note: Learners do not need to state the reason why we might archive a file.   (2)

4.5.2 Any TWO of: ✔✔

- Remove duplicate files
- Remove files no longer needed
- Zip/compress files that need to be backed up
- Only backup data files not programs
- Only backup files modified since the last backup (incremental backup)

Note: Do not accept answers related to archiving.   (2)

4.6   A plug-in is a small application/software ✔ that enables you to view additional specialised multimedia content such as flash animations. ✔   (2)

4.7.1 Any TWO of: ✔✔

- To add new features
- To fix bugs in the software
- To fix security loopholes
- To improve performance, stability, etc.

Note: Do not accept answers related to updating of malware/virus definitions etc.   (2)

4.7.2 Service packs are collections of updates that are released ✔ by a vendor from time to time.

They include all previous updates and patches released for that product. ✔

Note: Accept 'ensures that software is completely up-to-date' for second mark.   (2)

4.8   TWO reasons: ✔✔

- So the file can be opened by another program
- So the file can be opened/read by older versions of the same program etc.

Note: Accept answers relating to someone not having the software/program the file was created in for the first bullet.   (2)

4.9   Metadata is additional information about the file. ✔

ONE example of metadata related to a photo: ✔

- Type of camera used/manufacturer
- Resolution of photo
- ISO speed
- Focal length
- GPS coordinates of where the photographs were taken.

Note: Accept answers like additional information or properties or 'data about the data' as a description for metadata. Do <u>not</u> accept answers for the metadata that are 'general' and used or any file type such as Date Modified, Size etc. (2)

4.10 Read-only means the file cannot be saved directly on the CD (as a normal 'save' operation from within the spreadsheet, i.e. without burning the file back onto the CD) ✔

Save the file to a different location (Save As) ✔ (2)

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Question 5

5.1.1 Do you need a type of connection that is mobile? ✔ (1)

5.1.2 Any ONE of: ✔

- You make/receive telephone calls and use the line for Internet access at the same time
- Most ADSL routers include WiFi, so the users can access the Internet wirelessly, etc.

Note: Do not accept answers related to cost or that it is a broadband connection. (1)

5.2.1 The area where you can receive the (wireless) WiFi signal is known as the hotspot. ✔

Many places (like the hotel, or coffee shops) allow you to connect to use their Internet access by connecting to it via WiFi. ✔ (2)

5.2.2 Skyping means to use the Skype program to have an audio or audio/visual conversation via the Internet. ✔

Any ONE of: ✔

- It uses a lot of bandwidth or cap – cost implication.
- The quality can be poor if you have a slow Internet connection.
- There may be issues regarding privacy, etc. (2)

5.3 Geographical location/Based in UK ✔ Designed for viewing on mobile/small devices. ✔ (2)

5.4 Any TWO of: ✔✔

- Main links should be easy to locate and identify/appear in a consistent position
- Link should be short/easy to understand/figure out
- Should be no 'broken' links, i.e. links that do not work
- Links should be formatted in a consistent/ standard way etc. (2)

5.5.1 Instant Messaging (IM) systems work in real-time, whereas e-mail does not ✔

Note: Accept any answers that are the equivalent of real-time. (1)

5.5.2 CAPTCHA ✔

Accept any answer relating to checking if the response is generated by a person and not a computer/program. ✔ (2)

5.5.3 A contact group is a group of e-mail addresses saved under one name (the name of the group). ✔

A message sent to this list or group is then sent to all the recipients listed in the group instead of adding all the addresses individually each time / it would save her time, in that the message need be sent only once to the contact group, and not to each recipient individually. ✔ (2)

5.6.1 The email address ('name') the user wanted has been 'taken' so the user used a variation by adding a number. ✓ (1)

5.6.2 Any TWO of: ✓✓

- Accessible anywhere you have Internet access
- Don't need to install additional software to use (just need a web browser)
- Saves storage space (e-mail can be left on the server)
- Web-based mail systems often provide other (free) services such as chat facilities etc.

Note: Do not accept any answers related to costs (2)

5.7.1 The file is scanned and compared to a list/database of virus definitions. ✓ (1)

5.7.2 The virus is placed in an area of the disk where it cannot further infect the computer. ✓

This normally occurs when the anti-virus software cannot (safely) remove the virus
OR If the user specifies that is the action to be taken when a virus is detected. ✓ (2)

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Question 6

6.1 Any TWO of: ✓✓

- Authority/Credentials of author(s)
- Currency/which of the two websites is more up-to-date?
- Audience/level at which it is written/who is it intended for?

Note: Do not accept answers related to coverage, objectivity or consulting other sources. (2)

6.2.1 A closed question has a finite/ restricted number of possible answers. ✓

Note: Also accept answers like 'A question that can be answered by facts / A question that starts with words such as what, where, who, etc.'

Accept any suitable example of a closed question such as: ✓

- In which grade are you (The grade of a high school learner would be limited from 8 to 12)
- A respondent may be asked to rate the service they experienced in a shop on a scale of 1 to 5, etc. (2)

6.2.2 Any ONE of: ✓

- Easier to perform statistical calculations on data with a fixed range/set of values
- Less chance of invalid data being present and forming part of results etc.

Note: Do not accept answers related to the ease of data capture. (1)

6.3 Any THREE of: ✓✓✓

- Potentially easier to reach bigger target groups
- Results are captured immediately
- Can perform error checks/validate data/ point out errors
- Force people to answer questions in sequence
- Potentially greater privacy (no interviewer)
- Saves on paper
- Lower costs in administering the survey etc. (3)

6.4.1 The COUNTIF function *counts the number of cells* that meet specified criteria. ✔

The SUMIF function *sums the values* that meet specified criteria. ✔ (2)

6.4.2 Any TWO of: ✔✔

- Graphing capabilities
- Ability to sort/group data
- Automatic recalculation of functions/formulae when data added or changed
- Conditional formatting etc.

Note: Do not accept answers related to availability and use of functions. (2)

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Question 7

7.1 Any TWO of: ✔✔

- Respecting the privacy/data/intellectual property of others.
- Not changing software or hardware settings (including installing/uninstalling).
- Report any problems they see to a staff member.
- When and where portable storage devices (e g. flash disks) may be used.
- Consequences of not adhering to the conditions of the AUP, etc.

Note: Do not accept answers related to general behavioural issues (e.g. littering) or issues related to Internet usage e.g. offensive material, cap, etc. (2)

7.2 New spyware 'definitions' (lists of known spyware) are updated. ✔

The list/database of websites known to spread spyware is updated. ✔

Note: Accept answers related to the ability to detect 'newer' spyware for the first mark. (2)

7.3.1 A firewall is a program/software ✔ that controls/detects which programs are accessing your computer from the Internet ✔ (and vice versa).

Note: Accept a combination of software/hardware for program/software. (2)

7.3.2 Any TWO of: ✔✔

- SMS (cellphone) notifications of e-banking activity
- One time passwords (OTP)/Per session passwords for certain transactions, e.g. creation of beneficiaries
- Masking of passwords and codes with e.g. asterisks, to discourage 'shoulder-surfing'
- Use of encryption / HTTPS protocol
- Providing on-screen keypads
- Automatic time-out/logging off after a period of inactivity, etc.

Note: Do not accept answers related to logons/passwords/PINs or any 'user' measures. (2)

7.4 A validation rule specifies a range/set of values ✔ that may be entered ✔ (into a field in a database).

Note: Also accept the converse – values not permitted by the validation rule cannot be entered. (2)

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Question 8

8.1 A template is a document that contains the basic layout and sections needed for a particular type of document. ✔

You sister can use a template for a CV and then customise the document to suit her particular needs. ✔ (2)

8.2 Format the heading with the same style used to format the existing headings. ✔

Update the table of contents. ✔ (2)

8.3.1 The maximum number of characters ✔ that can be stored in the field. ✔ (2)

8.3.2 Number (or AutoNumber) ✔ (1)

8.4.1 Yes/No ✔ (1)

8.4.2 The values for the field in each record have to be different (unique). ✔

The field may not be left 'empty' or 'blank'. ✔ (2)

[10]

Question 9

9.1 UPS (Uninterrupted Power Supply). ✔

Any ONE way of assisting: ✔

- Can provide power for a limited period of time if the power goes off
- Can protect against power surges and spikes (2)

9.2 Any TWO of: ✔✔

- Cable locks/chaining the computers
- Using lockable cabinets
- Using motion sensors that detect when the computer has been moved etc.

Note: Do not accept answers related to securing access to the building (2)

9.3 Any TWO of: ✔✔

- Sensor size
- Zoom options (digital or optical but not accept both)
- Resolution/Megapixels
- Type/size of storage media
- Mechanisms to transfers photos (WiFi, Bluetooth, USB, etc.)
- ISO Rating, etc.

Note: Do not accept non-technical issues such as warranties, after-sales-service and cost. (2)

9.4.1 Any TWO of: ✔✔

- Not as easy/quick to type on an on-screen keyboard
- Can become smudge/oily/dirty (with use of fingers)
- Not suitable for basic computer training /Best suited to smaller portable devices

Note: Do not accept answers related to cost or theft. (2)

9.4.2 Size ✔ and resolution (pixels) ✔ (2)

9.5.1 Disk fragmentation is when separate parts of files end up being stored on several different locations on the disk. ✓

This reduces the overall performance of the computer because it takes longer to open fragmented files. ✓ (2)

9.5.2 No ✓ Defragmenting simply rearranges the parts of the files on the disk. ✓

Note: No marks if motivation is incorrect (2)

9.6.1 To provide resources/services to the other (client) computers ✓ (1)

9.6.2 Any TWO of: ✓✓

- Users can access their files on any computer as their files are stored on the server
- Easier to backup files
- Easier to share/distribute files (accept suitable examples)
- Easier to check for malware in files etc.

Note: Do not accept 'faster' disk access. (2)

9.6.3 Any TWO of: ✓✓

- Can speed up Internet access (cached sites)
- Easier to implement security e.g. firewall and anti-virus control measures
- Easier to use software to filter/restrict access to websites etc.

Note: Do not accept answers related to cost savings (2)

9.6.4 Any TWO of: ✓✓

- Requires less effort to set-up and presents fewer difficulties than laying cables
- Easier to add additional equipment to the network
- Allows for mobility - you can connect wherever you can access the signal
- There is no clutter that is associated with using cables, etc. (2)

9.6.5 Any TWO of: ✓✓

- Need to purchase extra hardware (e.g. wireless access points and possibly wireless network cards for the computers).
- Might be interference with the wireless signal/loss of signal
- Requires a greater level of expertise to set up.
- Performance can decrease if more computers are added to the network
- Need to guard against people illegally accessing the network by 'intercepting' the wireless signal, etc.

Note: Do not accept answers related to costs. (2)

9.7 Any TWO of: ✓✓

- Access to any hardware not directly connected to the computer, e.g. printers
- Access to other computers
- Network activity indicator on the desktop, e.g. in the System Tray
- Presence of extra (logical) drives like U: etc. (2)

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Question 10

10.1.1 Cost ('Free') ✓

Note: Do not accept answers related to changing the source code. (1)

10.1.2 System requirements refer to the minimum hardware/software required for software to install/run effectively. ✓

If the specifications are lower than the system requirements, the software may not install/run effectively. ✓ (2)

10.1.3 Any TWO of: ✓✓
- Link the product to the user
- Prevent software piracy/ prevent one installing it on more than one computer
- In order to qualify for future updates/upgrades
- To obtain online support from the company etc. (2)

10.1.4 A typical installation will install the components that would suit most users/most users use. ✓

A full installation will install the full/all the components of the software. ✓ (2)

10.1.5 Any one reason why one should not simply select the relevant program folder and delete it: ✓
- The program is installed across several folders / won't be completely removed.
- The registry needs to be updated
- Simply deleting the program can corrupt the system, etc.

Any one correct way to remove the software from the computer: ✓
- Use the operating system function in the Control Panel to remove it.
- Use the uninstall option of the program to remove it. (2)

10.1.6 Any TWO of: ✓✓
- Incompatible file formats
- Different interfaces to learn/use
- Harder to set up training material/teach both versions
- Newer version will have features not available in older version (Office 2003)
- Newer version (Office 2013) may run slower etc. (2)

10.2 A magnifier utility ✓ (to magnify an area of the screen)

A narrator/text-to-speech ✓ utility (to read out any text on the screen) (2)

10.3.1 Cloud storage refers to storing data on servers on the Internet ('the cloud'). ✓ (1)

10.3.2 Any ONE of: ✓
- SkyDrive
- DropBox
- Google Drive
- iCloud etc. (1)

10.3.3 Any TWO of: ✓✓

- You can access your data from any location that has Internet access
- Saves storage space on your local machine or device
- Easier to share data.
- Backup and security are managed by the storage provider
- Data is still accessible even if the computer is stolen / broken
- Files can be synchronised to other computers and devices / always have latest version, etc. (2)

10.4.1 Yes/No ✓ (1)

10.4.2 Any ONE of: ✓

- Quicker to input
- Less likelihood of data capture errors (accept specific examples e.g. spelling)
- Easier to use as criteria in queries
- Easier to validate (accept specific examples) etc.

Note: *Do not accept 'easier to sort'.* (1)

10.4.3 Any THREE of: ✓✓✓

- Names will not appear/be shown (accept 'not ticked' to show)
- Names will be incorrectly sorted (accept should be sorted by Surname, then Name)
- AND operator should be OR ("Word" or "Excel")
- >= relational operator should be <= (accept <=18 as well as < 19) (3)

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TOTAL: 150