



**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**SEPTEMBER 2020**



**COMPUTER APPLICATIONS TECHNOLOGY P2  
MARKING GUIDELINE**

**MARKS: 150**

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This marking guideline consists of 18 pages.

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## SUGGESTIONS AND RECOMMENDATIONS TO MARKERS

- Revisit the questions and the marking guideline frequently during the marking session.
- It is advisable to read the question frequently (and re-read) together with the candidate's response to check that it correlates, so that you are not misled by the candidate's statements/answers.
- Be careful not to focus on keywords or general statements, but rather read the entire answer. If in doubt, read the entire answer and then the question paper and the marking guideline.
  - Ask yourself or your senior marker if the response could 'fit' into the marking guideline before allocating the correct marks to the candidate.
  - Accept correct answers that are expressed differently, e.g. the marking guideline states 'slow' and the candidate responds with 'not fast'.
- Beware of overlapping answers to a specific question. In general, ONE mark is awarded per fact.
- Do not choose answers on the candidate's behalf. Where a question requires a candidate to LIST or NAME/STATE: mark the first number of instances required, e.g. the first TWO facts if the candidate presents a list of FIVE facts and only TWO facts were required, even if presented in paragraph format.
- Questions requiring longer answers must be regarded as a single unit. Marks can be awarded if correct statements are found anywhere in the paragraph.

**SECTION A****QUESTION 1: MULTIPLE-CHOICE**

1.1	A	(1)
1.2	D	(1)
1.3	A	(1)
1.4	D	(1)
1.5	B	(1)
1.6	B	(1)
1.7	C	(1)
1.8	D	(1)
1.9	C	(1)
1.10	C	(1)

**[10]****QUESTION 2: MATCHING COLUMNS**

2.1	K	(1)
2.2	P	(1)
2.3	O	(1)
2.4	L	(1)
2.5	A	(1)
2.6	E	(1)
2.7	G	(1)
2.8	M	(1)
2.9	B	(1)
2.10	D	(1)


**[10]****QUESTION 3: TRUE/FALSE ITEM**

3.1	False System software	(1)
3.2	True	(1)
3.3	True	(1)
3.4	False Pharming	(1)
3.5	False Plug-in	(1)

**[5]****TOTAL SECTION A: 25**

## SECTION B

## QUESTION 4: SYSTEM TECHNOLOGIES

4.1	4.1.1	<b>Key function of operating system to manage memory</b>  The operating system needs memory (RAM) to control the programs loaded in order not to use the same area of memory at the same time ✓ and corrupt each other's data/instructions. ✓	2	6
	4.1.2	<b>TWO examples of how an operating system provides a basic level of security.</b>  <ul style="list-style-type: none"> <li>• User and password control and access rights. ✓</li> <li>• Providing basic protection against threats to our computers. ✓</li> </ul>	2	
	4.1.3	<b>Function of utilities and relationship with operating system</b>  <ul style="list-style-type: none"> <li>• Utilities are programs that perform system maintenance and administration tasks. ✓</li> <li>• Several types of utilities are included with the operating system. ✓</li> </ul>	2	
4.2	4.2.1	<b>Need special software to create a 'zipped' file. Motivate.</b>  <ul style="list-style-type: none"> <li>• No ✓</li> <li>• The Windows operating system provides the ability to create zipped or compressed versions of files. ✓</li> </ul>  <b>OR</b>  <ul style="list-style-type: none"> <li>• Right-click on the file/folder and choose the 'compressed zipped folder' option on the 'Send to' menu.</li> </ul>	2	4
	4.2.2	<b>Common reason to zip a file when sending e-mail attachment</b>  <ul style="list-style-type: none"> <li>• To save time ✓ and cap ✓ in sending and downloading the file.</li> </ul> <b>OR</b>  <ul style="list-style-type: none"> <li>• It is also regarded as bad netiquette ✓ to attach very large files.</li> </ul> <p><b>(Note to marker: Only 1 mark if they refer to netiquette)</b></p>	2	
4.3	<b>'Cache memory' and why it can improve the overall performance</b>  Cache memory is a high speed memory used to hold recently or frequently accessed data ✓ in order to be able to retrieve that data faster. ✓		2	2
4.4	4.4.1	<b>Display specification in the first line of the advert</b>  <ul style="list-style-type: none"> <li>• <u>13.3 inch</u>: size of monitor / measured in inches / diagonally ✓</li> <li>• <u>FHD</u>: monitor has full high definition display/ high resolution display ✓</li> <li>• <u>LED</u>: kind of display that uses small lights at back of screen (light emitting diode display) ✓</li> </ul>	3	

4.4.2	<p><b>Size of the memory and storage – clear distinction</b></p> <ul style="list-style-type: none"> <li>• Memory: 16 GB RAM ✓</li> <li>• Storage: 512 GB SSD ✓</li> </ul> <p><b>(Note to marker: GB measurement should be present for marks. Size without indication of component = no marks)</b></p>	2	
4.4.3	<p><b>Is Windows 10 a proprietary or an open source?</b></p> <p>Proprietary ✓</p>	1	
4.4.4	<p><b>Specific port that the laptop user to connect to:</b></p> <p><b>Data projector</b></p> <p>(a) HDMI or SVGA (VGA) ✓</p>	1	
	<p><b>External hard drive</b></p> <p>(b) USB port ✓</p>	1	
4.4.5	<p><b>ONE reason for choosing an SSD instead of a HDD</b></p> <ul style="list-style-type: none"> <li>• Faster than HDD ✓</li> <li>• Less noise</li> <li>• More durable</li> <li>• Less electricity</li> <li>• Smaller physical size</li> <li>• Less likely to be affected by magnetic interference (✓ Any one)</li> </ul>	1	9
4.5	<p><b>TWO advantages of using HDMI technology instead of VGA</b></p> <ul style="list-style-type: none"> <li>• Supports higher resolution / better quality video ✓</li> <li>• Can transmit sound and video on one cable ✓</li> <li>• Newer equipment only supports HDMI (✓✓ Any two)</li> </ul>	2	2
4.6	<p><b>State TWO ways user could install software – not an optical drive</b></p> <ul style="list-style-type: none"> <li>• Any external/portable media such as             <ul style="list-style-type: none"> <li>○ Flash drive/USB Stick ✓</li> <li>○ Hard drive/SSD</li> <li>○ External optical drive</li> <li>○ Memory card/Internal storage of a mobile device e.g. Smartphone, etc.</li> </ul> </li> <li>• Via the Internet/Web ✓</li> <li>• Remote assistance/Via a network (they might be connected to) ✓ (✓✓ Any two)</li> </ul>	2	2
			<b>[25]</b>

## QUESTION 5: INTERNET AND NETWORK TECHNOLOGIES

5.1	<p><b>TWO factors that should be carefully considered when choosing an ISP</b></p> <ul style="list-style-type: none"> <li>• Bandwidth/speed of connection should be high ✓</li> <li>• Wide network coverage ✓</li> <li>• Whether there are capped and uncapped offerings</li> <li>• The services that are offered by the ISP</li> <li>• Reputation of the ISP</li> <li>• Whether data is carried over into the next month</li> <li>• Whether the ISP offers an anti-virus facility</li> <li>• Whether the ISP is known for a stable connection etc.</li> </ul> <p>(Note to marker: <b>NOT cost</b>) (✓✓ Any two)</p>		2	2
5.2	<p><b>TWO limitations of using an ADSL connection</b></p> <p>Lack of portability ✓          Can be expensive (depending on the package chosen) ✓          ADSL may not be available in your area (✓✓ Any two)</p>		2	2
5.3	5.3.1	<p><b>Describe the above package as 'capped' or 'uncapped. Motivate.</b></p> <ul style="list-style-type: none"> <li>• Capped ✓</li> <li>• Limited to 30GB per month ✓</li> </ul>	2	
	5.3.2	<p><b>Common term used when an ISP slows Internet speed</b></p> <p>Throttling ✓</p>	1	
	5.3.3	<p><b>Give TWO factors that can influence internet speed.</b></p> <ul style="list-style-type: none"> <li>• Quality of the modem/router ✓</li> <li>• The computer might be slow ✓</li> <li>• Network traffic is high</li> <li>• The type of cable used</li> <li>• The capacity the ISP allows per user is low</li> <li>• Distance between the computer and the server of the ISP (✓✓ Any two)</li> </ul>	2	
5.4	<p><b>Explain the term click-jacking.</b></p> <ul style="list-style-type: none"> <li>• Click-jacking is when users are tricked into clicking on an item ✓ on a webpage which acts as a concealed link. ✓</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>• Click-jacking may redirect users to a fake website ✓ where they do not want to go or that asks them for personal information. ✓</li> </ul>		2	2
5.5	<p><b>Type of internet connection that uses light for data transmission.</b></p> <p>Fibre/Li-Fi ✓</p>		1	1

5.6	5.6.1	<p><b>TWO long-term solutions to poor picture quality in video conferencing</b></p> <ul style="list-style-type: none"> <li>• Get a faster (higher bandwidth) connection / switch to fibre/4G ✓</li> <li>• Connect when less internet traffic ✓</li> <li>• Make sure VoIP software/Skype is updated to the latest version</li> <li>• Don't overload your internet with other tasks (while video conferencing) – close other tasks on the internet</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>	2	2
	5.6.2	<p><b>Explain what the term bandwidth means.</b></p> <p>Bandwidth refers to the total amount of data that can be transferred from one point to another in a given period of time. ✓</p>	1	1
				<b>[15]</b>



## QUESTION 6: INFORMATION MANAGEMENT

6.1	<p><b>Explain why using an online questionnaire is an effective option</b></p> <p><b>Data capture</b></p> <ul style="list-style-type: none"> <li>• Data capture can be automated ✓</li> <li>• More accurate as responses go directly into the system</li> <li>• Easy to use for participants</li> </ul> <p style="text-align: right;">(✓ Any one)</p> <p style="text-align: center;"><b>AND</b></p> <p><b>Data processing</b></p> <ul style="list-style-type: none"> <li>• Responses can be collated into a spreadsheet ✓</li> <li>• Responses can be analysed automatically</li> <li>• Faster than collecting by manual means</li> <li>• Cheaper online questionnaires can halve your research costs</li> <li>• Easy to use for researchers</li> </ul> <p style="text-align: right;">(✓ Any one)</p>	2	2
6.2	<p><b>Survey</b> – A set of written/typed questions handed to a group or many people. ✓</p> <p style="text-align: center;"><b>AND</b></p> <p><b>Interview</b> – A set of questions to be asked verbally/ Usually meant for only one person (such as a connoisseur) ✓</p>	2	2
6.3	<p><b>What does the term 'information overload' refer to?</b></p> <p>Information overload is what happens when people can't cope with the amount of information that they are exposed to every day. ✓</p>	1	1
6.4	<p><b>How will you know that a web page is authentic and reliable?</b></p> <ul style="list-style-type: none"> <li>• Check credentials/affiliation of the author/organisation running the website/ published the site ✓</li> <li>• The motivation behind the web page ✓</li> <li>• Their reference list</li> <li>• It shows the date of the last update of the web page</li> <li>• It seems as if the web page is permanent or is part of a permanent organisation</li> <li>• The facts correct</li> <li>• Any links to other trusted resources</li> <li>• Topic well covered</li> <li>• Look at the general presentation, e.g. spelling errors</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>	2	2
6.5	<p><b>TWO potential advantages of using queries instead of filters</b></p> <ul style="list-style-type: none"> <li>• Filters are not permanent/Filters have to be re-done each time/Queries are saved/permanent ✓</li> <li>• Queries have a wider range of criteria that can be used ✓</li> <li>• Queries allow for choosing which fields should be displayed</li> <li>• Queries allow for calculated fields to be added</li> <li>• Reports and forms can be based on queries</li> <li>• Queries provide for additional options e.g. sorting, grouping, calculations, aggregate calculations, etc.</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>	2	2



6.6	<b>Why a bibliography should be added to a research report</b> <ul style="list-style-type: none"><li>• One has to acknowledge sources ✓</li><li>• For future reference</li><li>• To compare the project and the original sources for plagiarism (✓ Any one)</li></ul>	1	1
			<b>[10]</b>



**QUESTION 7: SOCIAL IMPLICATIONS**

7.1	<p><b>Explain how a blog differs from a vlog.</b></p> <p>A blog contains written events, stories, topics ✓ whereas vlog entries often combine embedded video with supporting text, images, and other metadata. ✓</p>	2	2
7.2	<p><b>Discuss TWO skills required by people who wish to follow a career in Big Data.</b></p> <ul style="list-style-type: none"> <li>• <b>Analytical skills:</b> Analytical problem-solving abilities to determine which data is relevant to a particular solution. ✓</li> <li>• <b>Creativity:</b> Ability to create new methods to gather, interpret, and analyse a data strategy. ✓</li> <li>• <b>Mathematics and statistical skills</b></li> <li>• <b>Computer science:</b> Programmers need to come up with algorithms/ systems/steps to process data into insights.</li> <li>• <b>Business skills:</b> Understand what drives the growth of a business as well as its profit. (✓✓ Any two)</li> </ul>	2	2
7.3	<p><b>What is the purpose of an EULA agreement?</b></p> <p>EULA is an agreement between software developer and user ✓ on how/what the software is going to be used. ✓</p>	2	2
7.4	<p><b>Give TWO potential disadvantages of e-learning</b></p> <ul style="list-style-type: none"> <li>• Lack of access to technology/working hardware/Digital Divide. ✓</li> <li>• Lack of technology skills to unlock/maximise potential of e-learning. ✓</li> <li>• Potential lack of guidance/input/feedback/monitoring from teacher.</li> <li>• Dependent on electricity/battery life.</li> <li>• Feelings of being isolated/Lack of human contact/Contributes to lack of socialisation skills.</li> <li>• Health-related concerns ('Long hours of sitting'), etc. (✓✓ Any two)</li> </ul> <p><b>(Note to marker: Do NOT accept any answers relating to costs.)</b></p>	2	2
7.5	<p><b>Describe the function of virtual assistant software.</b></p> <ul style="list-style-type: none"> <li>• Virtual assistant, is an application program that understands natural language voice commands ✓ and completes tasks for the user. ✓</li> </ul>	2	2
			<b>[10]</b>

**QUESTION 8: SOLUTION DEVELOPMENT**

8.1	<p><b>How do you convert an endnote to a footnote?</b></p> <p>Open Footnotes grouping ✓                  Click Convert Note ✓                  Click Convert Endnote to Footnote ✓</p> <p style="text-align: center;"><b>OR</b></p> <p>Right click ✓ on footnote ✓                  Click on Convert to Endnote ✓</p> <p style="text-align: right;">(✓✓✓ Any three)</p>		3	3
8.2	<p><b>The function you would use in cell B6:                  The first 2 letters of students names (column C);                  The total for the semester (column G).</b></p> <p>Cell B6:                  =CONCATENATE(LEFT(C6,2),G6)</p>		4	4
8.3	8.3.1	<p><b>The <u>name</u> of the function that was used in Column C to determine the position of the space</b></p> <p>FIND ✓</p>	1	1
	8.3.2	<p><b>Spreadsheet feature that was used to display the words in cell C1</b></p> <p>WRAP TEXT ✓</p>	1	1
	8.3.3	<p><b>Spreadsheet feature that was used in Column A to systematically insert automatic numbers</b></p> <p>AUTOFILL ✓</p>	1	1
8.4	8.4.1	<p><b>Criterion would you enter in a query to extract suburbs starting with 'A'</b></p> <p>A * [ Also accept a* and Like "A*" ]</p>	2	
	8.4.2	<p><b>State which data type was used for the field DwellingNumber.</b></p> <p>Short Text [ Also accept Text (Access 2010) ]</p>	1	
	8.4.3	<p><b>Which criterion would you enter in a query to find those records that do <u>not</u> have a value entered in the DwellingNumber field?</b></p> <p>Is Null ✓</p>	1	4

8.5	<p><b>Briefly explain what the Widow/Orphan control in a word processor is used for.</b></p> <p>To ensure that at least 2 lines of a paragraph appear at the top or bottom of a page adjacent to the page on which the main body of the paragraph is located. ✓</p> <p><b>(Note to marker: Accept equivalent wordings, e.g. to prevent a single line of a paragraph from appearing on a page other than that on which the rest of the paragraph is located.)</b></p>	1	1
			<b>[15]</b>

**TOTAL SECTION B: 75**




## SECTION C

## QUESTION 9: INTEGRATED SCENARIO

9.1	<b>Identify AND describe the type of device (VRX5) above.</b>  Virtual reality ✓ headset ✓	2	2
9.2	<p><b>Name ONE use and ONE disadvantage of the VRX5.</b></p> <ul style="list-style-type: none"> <li>• Entertainment like in playing games and watching movies ✓</li> <li>• Media – marketing campaigns creating interactive forms of media</li> <li>• Education and training – used by trainers to provide learners with a virtual environment where they can develop their skills without the real-world consequences of failing</li> <li>• Medical personnel are able to train through VR to deal with a wider variety of injuries</li> <li>• It can be used in scientific research laboratories so that scientist can easily research on a specific topic</li> <li>• It can be used in driving schools as it give a real look of roads and traffic.</li> <li>• It can be used in military training for the soldiers to get familiar with different areas in the battlefield (✓ Any one)</li> </ul> <p style="text-align: center;"><b>AND</b></p> <ul style="list-style-type: none"> <li>• Availability of such hardware ✓</li> <li>• The equipment used in virtual reality are very expensive</li> <li>• It consists of complex technology</li> <li>• In virtual reality environment we can't move by our own like in the real world.</li> <li>• Some people may experience cyber-sickness, or feel nauseous because of the motion of the environment</li> <li>• Psychological effects the users may experience</li> <li>• More aggressive behaviour etc. (✓ Any one)</li> </ul>	2	2
9.3	<p><b>TWO reasons why you would rather prefer to have a laptop</b></p> <ul style="list-style-type: none"> <li>• Laptops can be locked away/security ✓</li> <li>• Battery can allow use during power outages/away from power source ✓</li> <li>• Consumes (generally) less power</li> <li>• Mobility makes it easy to set up in any room for tests and exams, or to be used for different purposes/mobility (✓✓ Any two)</li> </ul>	2	2

<p>9.4</p>	<p><b>Identify TWO software-related problems that could reduce the speed of a computer and potential solution for EACH.</b></p> <p><b>Problem:</b> Malware/Virus infection ✓  <b>Solution:</b> Remove the infection with an antivirus program/removal tool ✓</p> <p><b>Problem:</b> Too many programs/browser tabs open at the same time for the amount of RAM available/memory full/Programs running in the background ✓  <b>Solution:</b> Close unused programs/Find and close any unnecessary programs running in the background ✓</p> <p><b>Problem:</b> Software updates being automatically downloaded  <b>Solution:</b> Switch off automatic updates</p> <p><b>Problem:</b> Defective application/bug  <b>Solution:</b> Update/Replace defective applications</p> <p><b>Problem:</b> Too many unnecessary files/temporary files on the hard drive  <b>Solution:</b> Use Disk Clean up/Remove unnecessary files or programs                  (Any two <b>problems</b>✓✓ with appropriate solutions✓✓)</p>	<p>4</p>	<p>4</p>
<p>9.5</p>	<p><b>TWO devices that could assist him to interact with the content on the monitor</b></p> <ul style="list-style-type: none"> <li>• Magnification devices ✓</li> <li>• Large-key keyboards ✓</li> </ul>	<p>2</p>	<p>2</p>
<p>9.6</p>	<p><b>Give TWO disadvantages of using VoIP software</b></p> <ul style="list-style-type: none"> <li>• Both users need to use the same software ✓</li> <li>• Must purchase credits to call cell phones and landline numbers ✓</li> <li>• Call quality may be poor (if slow Internet connection)</li> <li>• Can be expensive/use up cap (especially if video is used)</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p> <p><b>(Note to marker: TWO disadvantages (excluding Internet requirement))</b></p>	<p>2</p>	<p>2</p>
<p>9.7</p>	<p><b>TWO possible uses for voice recognition software</b></p> <ul style="list-style-type: none"> <li>• Giving vocal instructions to open/use apps ✓</li> <li>• Voice dialling ✓</li> <li>• Google search via Google's voice recognition</li> <li>• Assistants for the disabled, e.g. Siri</li> <li>• Dictating text, etc.</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>	<p>2</p>	<p>2</p>
<p>9.8</p>	<p><b>9.8.1 How do you prevent ransomware?</b></p> <ul style="list-style-type: none"> <li>• Be sure that all software is updated ✓</li> <li>• Use web filtering to monitor and block infection vectors ✓</li> <li>• Have an updated antivirus</li> <li>• Have updated IPS rules</li> <li>• Back up your data</li> <li>• Double check all e-mails with attachments before opening them</li> <li>• Do not click on suspicious URLs</li> <li>• Install browser plug-ins to block pop-ups and JavaScript</li> <li>• Regularly scan your computer and apply the latest updates</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>	<p>2</p>	<p></p>

	9.8.2	<b>Why do many people pay the ransom?</b> <ul style="list-style-type: none"> <li>• The files are just too important to give up ✓</li> <li>• There is currently no guaranteed method to decrypt files ✓</li> </ul>	2	
	9.8.3	<b>Name ONE method of payment that can be used.</b> <ul style="list-style-type: none"> <li>• Cryptocurrency ✓ (Bitcoins)</li> </ul>	1	5
9.9	9.9.1	<b>Give TWO reasons for a software developer to release updates.</b> <ul style="list-style-type: none"> <li>• Fixing problems/bugs/flaws in software ✓</li> <li>• Improve the security features of the software ✓</li> <li>• Improve the efficiency of the software (✓✓ Any two)</li> </ul>	2	
	9.9.2	<b>State TWO potential disadvantages of not being able to disable automatic updates.</b> <ul style="list-style-type: none"> <li>• Data use could increase dramatically ✓</li> <li>• Downloading updates will have an impact on the speed at which a user can browse the Internet ✓</li> <li>• A drop in computer performance while the update is running may occur</li> <li>• Drop in performance after updates installed</li> <li>• Decrease in storage space</li> <li>• Features may be unnecessarily updated as they are not used, etc.</li> </ul>	(✓✓ Any two) 2	4
				<b>[25]</b>

## QUESTION 10

10.1	<b>What does the “G” in 4G or 5G stand for?</b> Generation ✓	1	1
10.2	<b>Name TWO ways (protocols) in which on-line devices would wirelessly connect to each other.</b> Wi-Fi ✓ Bluetooth ✓ NFC 3G/4G, etc.  (✓✓ Any two)  <b>(Note to marker: Accept any other correct answer)</b>	2	2
10.3	<b>Name ONE wearable computer mentioned in the article</b> Smartwatch/health sensor ✓  <b>Give ONE task that a user can perform with this device</b>  <b>Tasks:</b> Counting steps ✓ Calculator Take vital signs, heart beat/temperature Read time  <b>(Note to marker: Accept any other correct answer)</b>	2	2
10.4	<b>What is the computer called that would centrally store all information received from connected devices?</b> server/file server ✓	1	1
10.5	<b>Explain why HD-streaming will demand a lot of bandwidth.</b> <ul style="list-style-type: none"><li>• Files that are being streamed contains video, audio ✓</li><li>• High resolution files ✓</li></ul>	2	2
10.6	<b>Name the unit in which transfer speed to or from the internet is measured</b> mbps ✓	1	1
10.7	<b>Give ONE reason why upload speeds are normally slower than download speeds</b> Most high-speed Internet connections are asymmetric ✓  <b>OR</b> Internet providers give priority to downloading (✓ Any one)	1	1



10.8	10.8.1	C ✓	1	3
	10.8.2	B ✓	1	
	10.8.3	A ✓	1	
10.9	10.9.1	<p><b>Name TWO advantages for education when mobile communication becomes faster and more reliable</b></p> <ul style="list-style-type: none"> <li>• Better for tests and assessment ✓</li> <li>• Faster access to resources ✓</li> <li>• Better communication</li> <li>• Better for lesson planning if more reliable</li> <li>• Improved e-learning</li> <li>• Self-directed learning</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p> <p><b>(Note to marker: Accept any other correct answer)</b></p>	2	4
	10.9.2	<p><b>Give TWO examples of instant messaging applications.</b></p> <p>WhatsApp ✓ WeChat ✓ Facebook Messenger MXit, etc.</p> <p style="text-align: right;">(✓✓ any two)</p>	2	
10.10	10.10.1	<p><b>Give the most appropriate data type for the Value field.</b></p> <p>Currency ✓</p>	1	2
	10.10.2	<p><b>Give the most appropriate data type for the TabletID field.</b></p> <p>OLE ✓</p>	1	
10.11	<p><b>List TWO general advantages of using computer-based training software.</b></p> <ul style="list-style-type: none"> <li>• Can work at your own pace ✓</li> <li>• Immediate assessment and feedback by software – don't wait for work to be marked ✓</li> <li>• Better motivation to learn (from immediate feedback, built-in quizzes, tests, etc.)</li> <li>• Can allow for different learning styles</li> <li>• Software allows multimedia and other features not available in other methods</li> <li>• Can work alone / without a human teacher, so potentially cheaper, etc.</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p>		2	2

10.12	<p><b>Name TWO ways in which AR and/or VR technology can advantage the health sector.</b></p> <ul style="list-style-type: none"> <li>• Surgery can be done remotely/improved way for surgery ✓</li> <li>• Access to best care/expert personnel ✓</li> <li>• Access to difficult to reach parts of body</li> <li>• Innovate your products and services</li> <li>• Receiving medical consultation from a doctor without being physically present</li> <li>• Monitor your patient’s health from a remote location</li> <li>• Video monitoring,</li> <li>• Geo-based pharmacy recommendations,</li> <li>• Simplified billing,</li> <li>• And electronic health record integration</li> </ul> <p style="text-align: right;">(✓✓ Any two)</p> <p><b>(Note to marker: Accept any other correct answer)</b></p>	2	2
10.13	<p><b>Name TWO disadvantages of 3D printers.</b></p> <ul style="list-style-type: none"> <li>• 3D printers are expensive, even entry-level machines are much more expensive than normal printers ✓</li> <li>• It can take a long time to create models for 3D printers ✓</li> <li>• Consumables used in 3-D printing are also relatively expensive</li> </ul>	2	2
			<b>[25]</b>



**TOTAL SECTION C: 50**  
**GRAND TOTAL: 150**