

Cambridge National

Information Technologies

R012/01: Understanding tools, techniques, methods and processes for technological solutions

Level 1/2 Cambridge National Certificate/Award/Diploma

Mark Scheme for January 2021

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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1. These are the annotations, (including abbreviations), including those used in scoris, which are used when marking

<i>Stamp</i>	<i>Ref No.</i>	<i>Annotation Name</i>	<i>Description</i>
	151	Highlight	Highlight (mandatory for all units)
	181	Off Page Comment	Off page comment (mandatory for all units)
	11	Tick	Tick
	201	TV	Too vague
	811	SEEN	Noted but no credit given
	501	NAQ	Not answered question
	331	L3	Level 3
	321	L2	Level 2
	311	L1	Level 1
	21	Cross	Cross
	31	BOD	Benefit of doubt
	271	REP	Repeat

MARK SCHEME FORMAT

Question			Answer/Indicative content	Mark	Guidance
1			One mark available: <ul style="list-style-type: none"> Evaluation (1). 	1	Correct answer only.
2			One mark available: <ul style="list-style-type: none"> TRUE (1). 	1	(Accept alternative for TRUE e.g. Correct)
3			One mark available: <ul style="list-style-type: none"> Boolean/logic(al) (1). 	1	Correct answer only.
4			One mark available: <ul style="list-style-type: none"> <u>Flowchart</u>/<u>flow</u> diagram (1). 	1	

Question			Answer/Indicative content	Mark	Guidance
5			Two from: e.g. <ul style="list-style-type: none"> • Ransomware is malware/Malicious software (1). • It blocks/locks access to a computer system/network //encrypts files/data //makes files inaccessible (must have stop access concept for this mark to be awarded) (1). • Gives instructions on how access can be regained (1) • To obtain a (e.g.) fee//until a fee/ransom is paid (must have the transfer concept for this mark to be awarded) (1). 	2	Read whole answer and allocate marks to candidate's best advantage. Describe question – therefore candidate can make two individual points. Do not award: <ul style="list-style-type: none"> • “A type of software on its own”/“it is software” • Attempts to steal from you • Requires a ransom (Not enough) • Get stolen data/information/files back
6			Two from: <ul style="list-style-type: none"> • Gender/sex (1). • Age (1). • Location/address (1). • Accessibility (1). 	2	These are the only factors listed in the specification. This is a closed list. Do not accept: <ul style="list-style-type: none"> • Ethnicity (REP) • Income (REP)
7			One mark available: <ul style="list-style-type: none"> • Planning (1). 	1	Correct answer only.
8			One mark available: <ul style="list-style-type: none"> • Cloud (1). 	1	Accept either Cloud or The Cloud. Accept trade names for cloud based storage – e.g. One <u>Drive</u> /Google <u>drive</u> / Dropbox etc

Question			Answer/Indicative content	Mark	Guidance
9			<p>Two from:</p> <ul style="list-style-type: none"> To convert (the paper-based/current system) to a digital system (1). Data is updated (automatically) (1). Automatically update the data from the tills (1). Will be able to show/analyse data for... <ul style="list-style-type: none"> ...monthly sales (1) ...top selling products (1) ...weekly stock levels (1). 	2	<p>Do not consider two answers from same mark point as separate answers.</p> <p>DO NOT accept invented success criteria – answers must be directly from the scenario.</p> <p>Must be a full statement about what can be done (statement of what happens to a specific item).</p> <ul style="list-style-type: none"> “Stock levels” or “Top selling products”, for example, on own, is TV Similarly, “to analyse data” or “system is automated” on own is TV

10		<p>Two marks for disadvantage identified and described: e.g.</p> <ul style="list-style-type: none"> • Too simple/lacks detail (NOT “Too vague”) (1) <ul style="list-style-type: none"> ○ only captures small/discrete tasks (1). ○ does not provide the ‘how’ or ‘when’ for each task (1) only provides the ‘what’ needs to be done (1) (Two of three) • Task sizing is difficult (1) task list gives no indication of how complex a task is (1). • Does not aid prediction (1) of when the project will be completed/the cost of the project/whether the project meets the business needs (1). • Doesn’t include risk management (1) such as uncertainties (1) and so alternatives cannot be planned for (1) (Two of three). • No concurrent tasks (1) only process is through the queue (1). • Lesson are not learnt (1) as once an item is ‘crossed-off’ a to-do list it disappears (1). • No timings/time scales (1) so project may over run/no indication of how long to spend on (individual) tasks (1) 	2	<p>Line titles are for guidance only. Read the whole answer, but award first reason and associated description.</p> <p>Structure should be:</p> <p>The problem is (1) + Description of the problem (1)</p> <p>NB this is a description, NOT an explanation. However, be careful not to award a list of problems (e.g. does not show independent tasks (1) or tasks that can be done at the same time (0) (second answer would be suitable for a first mark were it presented on its own)</p> <p>Do not award:</p> <ul style="list-style-type: none"> • Can take a long time to find the next task – (Task lists are intended to be completed sequentially) • Informal • Lacks structure • Task list can be very long
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11	A	<p>Two marks available:</p> <p>e.g.</p> <ul style="list-style-type: none"> Does the system automatically update (from the tills)? (1). Does the system allow for the analysis (1) and reporting (1) (of monthly sales figures?) . Does the system identify when stock levels are low (1) NB “Does the system identify” (on its own) is not enough <u>End user</u> (testing) (1). <u>Acceptance</u> (testing) (1). 	<p>2</p> <p>Answers should fit the specifics of the scenario but need not be a direct quote.</p> <p>An actual test or type of test are both valid answers as indicated in mark scheme.</p> <p>This is a low demand question – candidate can answer by using a direct quote from the brief.</p> <p>Answer does not need to be written in the form of a question</p> <p>Candidate may state that system “allows to find out more about.....”. This is acceptable.</p> <p>Do Not Accept:</p> <ul style="list-style-type: none"> Does the system work? Other introduced concepts, such as “does system back up?” Any reference to a Hat Hacker Ease of use.
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	B	<p>Two marks for reason explained:</p> <p>e.g.</p> <ul style="list-style-type: none"> To check that system works (correctly) (1) to make sure that personal data is kept safe/not leaked (1). To test the individual components of the system (1) to ensure that they are functioning correctly//description (data could be edited/corrupted) (1). To identify errors before adding into the system (1) to make error identification easier (1). To check that it functions as required (1) to make error identification easier (1). To test the performance of the system//how fast it works (1) to make sure it performs under various conditions (1). To test the reliability of the system (1) to make sure it can function (for long periods of time) without failing (1). To test the security of the system (1) to make sure that the system does not allow unauthorized access/hacking (1). To identify errors in the system//functions that have not been added (1) so that the system can be improved//errors fixed (1) 	2	<p>Award first explanation only.</p> <p>Candidates can use “test”, “increase” or “improve” or other equivalences in their answers. e.g. Test reliability/increase reliability/improve reliability of the system are all acceptable.</p> <p>Candidate must correctly identify a reason before it can be explained.</p> <p>Do not award:</p> <ul style="list-style-type: none"> To make sure system is not attacked by hackers/viruses. This is NOT equivalent to mark point 7. To reduce//check that can not be hacked IS equivalent. To identify weaknesses in the system. Explanations based on business practice/client peace of mind. These may be given as an expansion to a valid first mark, but are not acceptable (this is an IT examination).
12		<p>Indicative content</p> <p>How the automated system will improve the quality of data.</p> <p>e.g.</p> <ul style="list-style-type: none"> To reduce the risk of human error by inputting the sales data from the tills manually. Any response that is based on the quality of the data being improved by having an automated system. 	10	<p>Band 3: [7-10 marks]</p> <p>Candidate explains how the use of an automated system, compared to a manual system, will improve the quality of data.</p> <p>There will be repeated reference to the context given by the scenario.</p> <p>Uses more than one relevant and appropriate contexts from the scenario.</p>

		<p>Do not award:</p> <ul style="list-style-type: none"> Anything to do with reducing costs. Anything to do with productivity e.g. increase in productivity. Any response which is as a consequence of improving the quality of data. 	<p><i>Candidate provides at least one explanation how the automated system will improve the quality of the data for bottom of mark band.</i></p> <p>Band 2: [4-6 marks]</p> <p>Candidate describes how the use of automated system, compared to a manual system, will improve the quality of the data.</p> <p>There will be repeated reference to the context given by the scenario.</p> <p><i>Candidate provides a description of how the automated system will improve the quality of the data is sufficient for bottom of mark band. This need not compare to a manual system.</i></p> <p>Band 1: [1-3 marks]</p> <p>Candidate has identified points relevant to the use of automated or manual collection of data.</p> <p>Uses one relevant and appropriate context from the scenario.</p> <p><i>Any identification of a point relevant to the use of automated or manual collection of data is sufficient for bottom of mark band.</i></p> <p>0 marks</p> <p>No response worthy of credit.</p>
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13	A	<p>Two from:</p> <p>e.g.</p> <ul style="list-style-type: none"> It is software/malware that is difficult to detect (accept “can not be” detected (BOD))/eliminate on a system (1) and the system is therefore vulnerable (or equivalent) (1). It can allow hackers to have continued access to the system (1st) <ul style="list-style-type: none"> without being detected (1). Once installed it can completely deactivate anti-malware software (installed on the infected system) (1) leaving it vulnerable to attacks (1). It allows remote access/control to a system (1st) <ul style="list-style-type: none"> so a hacker can introduce viruses/ransomware/keyloggers malware (1) ...to facilitate further system attacks/make changes to the system//take data/files (1) 	<p>2</p> <p>Read whole answer and allocate marks to candidate’s best advantage.</p> <p>NB – two example answers ONLY in the LHS here are 1st mark answers therefore the 1st mark <u>must</u> be awarded before other marks are considered FOR THESE ANSWERS</p> <p>Answer needs to be why it is a threat. It is extremely likely that ANY relevant/specific discussion of a rootkit will describe why it is a threat, but be aware of this requirement.</p> <p>Do not award:</p> <ul style="list-style-type: none"> Generic statements about virii/viruses – e.g. It can delete/change all data etc UNLESS AS expansion for mark point 4 It controls your computer <p>Be guided the example answers – these set the level required for answers to this question.</p>
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	B	<p>One mark available for identifying prevention measure and up to a further two marks for justification:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Use security programs on the system (1st) e.g. <ul style="list-style-type: none"> ○ such as anti-malware/firewall/log monitoring (1) ○ so that threats can be identified/blocked (1) • Use anti-malware/firewall (any mention of anti-malware/firewall) (1st) e.g. <ul style="list-style-type: none"> ○ which protect the system from threats//will secure the system//blocks threats (1) ○ they run in the background (1) ○ will identify/remove a malware issue/block threats from coming through (1). • Use passwords (1st) e.g. <ul style="list-style-type: none"> ○ passwords should contain letters, numbers and special characters (two of three required) (1) ○ the more complex/strong they are, the more difficult it is for a hacker to discover them (1). • Maintain the system with regular updates//software updates (1st) e.g. <ul style="list-style-type: none"> ○ makes system harder to gain access to (1) ○ by applying patches to deal with new issues//by applying more advanced patches (1) <p>Bullet point 5 - EXPANSION MUST be based on new patches//updating the software to deal with new identified problems to get full marks.</p>	3	<p>NB – 1st mark must be awarded before any other marks can be given.</p> <p>Read the whole of the justification. Justification may be one developed point for two marks, or two separate points.</p> <p>Do not award:</p> <ul style="list-style-type: none"> • Back up data, reinstate backups. • Do not award mix and match answers from different first marks unless there is a clear link. • Use of anti-virus (as opposed to anti-malware)/protection from virus • Do not open (unknown) emails • Use a VPN
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14		<p>One mark available:</p> <ul style="list-style-type: none"> • User guide (1) • (End) user documentation (1) • Guide (1) • Manual (1) • “How to” guide (1) 	1	<p>Low level question – award the concept of “guide/reference document” here</p>
15		<p>Two marks for each advantage explained (MAX 4) and two marks for disadvantage explained (MAX 2):</p> <p>Advantages: e.g.</p> <ul style="list-style-type: none"> • It is online (1) <ul style="list-style-type: none"> ◦ Advantage of being online (speed of message, avoiding printing costs etc) (1) • Cost effective/free to use/free advertising (1) <ul style="list-style-type: none"> ◦ cheaper than traditional advertising and promotional activities (1) ◦ costs of maintaining social media presence are minimal (1). ◦ hits a wide audience for minimal cost (1) • Widely accessible (1) <ul style="list-style-type: none"> ◦ Increases popularity (1) • Social media is used by people with differing backgrounds//most people (1) <ul style="list-style-type: none"> ◦ therefore will be seen by a wider social group (1) • Improved spread of message (1) <ul style="list-style-type: none"> ◦ so more people know about the centre (1) ◦ BECAUSE posts can be shared/friends see their friends’ comments (1) • Improved speed of message (1) <ul style="list-style-type: none"> ◦ posts can be shared (1) which can count as a personal recommendation (1) 	6	<p>Line titles are for guidance only. Take first two advantages given, irrespective of where given.</p> <p>DO NOT award a disadvantage given in the advantage section UNLESS the candidate has been efficient with line space. Candidate MUST show awareness that the issue given is a disadvantage.</p> <p>Low demand question, but must be +ve or -ve TO PFC. Award any advantage unless it is CLEARLY wrong</p> <p>For “widely accessible” accept any variation, including “world wide message”. This is just acceptable.</p> <p>NB, there is no first mark for this question and initial answers are given here for guidance only. Two marks can be awarded for any reasonable description.</p> <p>Do not award:</p> <ul style="list-style-type: none"> • Quick/easy on own • Use of expansion twice (“so increased popularity/more people will want to come etc” can only be used once) • Some people do not use//have access to social media (may specify a particular age group, but this is still incorrect)

			<ul style="list-style-type: none"> ○ faster distribution than paper based (or equivalent) (NB – faster distribution (1) than paper based (1) is acceptable) • Include rich media (1) <ul style="list-style-type: none"> ○ advantage of rich media(1) ○ this will generate interest and excitement (1). • Increased customer interaction (1) <ul style="list-style-type: none"> ○ social media allows two way communication (1) ○ positive feedback can attract new customers (1). • Includes weblinks (1) <ul style="list-style-type: none"> ○ boosts traffic to websites (1) which can lead to new customers//increased market awareness (1). <p>Disadvantages: e.g.</p> <ul style="list-style-type: none"> • Negative/rude/offensive feedback (1) <ul style="list-style-type: none"> ○ can damage the reputation of PFC (1). • Time consuming (1) <ul style="list-style-type: none"> ○ must be kept up to date/monitored (1) • Increased vulnerability (1) <ul style="list-style-type: none"> ○ Message can be hacked (and altered) (1) (Do not accept general expansions about loss of access, ransomware etc) • Easily overlooked/ignored (1) <ul style="list-style-type: none"> ○ Amongst the plethora of similar missives (1) 		<ul style="list-style-type: none"> • Social media can be expensive. • Requires little effort (irrespective of expansion) • Generic comments about advertising in general e.g. "Must take care message being given out is effective"
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16		<p>Two marks for action described:</p> <p>e.g.</p> <ul style="list-style-type: none"> Implement procedures (1st) <ul style="list-style-type: none"> to detect/ report/ investigate a breach in personal data (1). Implement security systems (accept examples) (1st) <ul style="list-style-type: none"> to prevent/reduce possibility of unauthorised access to PFC's computer system/customer data (1). So that only authorised personnel can access the data (DNA – “people with access” or similarly vague terms – TV)(1) so that data is unreadable/inaccessible (to an attacker) (1) specific example of action to comply e.g. backup (1) <ul style="list-style-type: none"> e.g. <ul style="list-style-type: none"> DPA says that data must be kept secure (1) make a copy so that data can be restored if stolen (1) 	2	<p>Further instruction:</p> <p>Line headings are for guidance only – read whole answer and mark to best advantage – mark positively and award where you can.</p> <p>Award ANY action which would result in an aspect of DPA/GDPR being met, but do not award statements from DPA/GDPR – mark as NAQ</p> <p>Action must refer to a <u>process</u> whereby PFC will meet the requirements of DPA/GDPR (must be more than just “keep data safe/secure” etc)</p> <p>Examples of examples of implementing security systems include:</p> <ul style="list-style-type: none"> put secure passwords/firewalls (on system) encrypt data/apply encryption
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17		<p>Two marks for each disadvantage described:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Network/internet access required (1st) <ul style="list-style-type: none"> ○ which costs money (unless wi-fi) (1) • (Increased) security risk/identity theft/hacking (1st) <ul style="list-style-type: none"> ○ (if accessing the app whilst using public WiFi), sensitive data stolen//phone could be hacked (DO NOT AWARD “phone could be hacked” IF “Hacking” given as first mark (1). • (Small) size of screen (1st) <ul style="list-style-type: none"> ○ can make it difficult to read reviews//input information when booking classes (1). • Not as detailed information about classes (1st) <ul style="list-style-type: none"> ○ (as a mobile platform) information is likely to be streamlined/simplified (1) • Can not clarify what the class is about (because can not ask a person) (1st) <ul style="list-style-type: none"> ○ therefore may not book//miss out on a class they would have enjoyed (1) 	2	<p>Further instruction:</p> <p>Only accept answers that deal with the process of booking a class (question is based on actual use of the app – therefore assume that its working) and NOT on getting an app or not having a phone.</p> <p>Some candidates may state the area of discussion for “disadvantage”, which is not enough, but will expand in the description, so read whole answer before deciding on the marks.</p> <p>NB Different disadvantages could have the same impact, therefore you may award the second mark in each case even if its repetition as long as is correct</p> <p>Do not accept:</p> <ul style="list-style-type: none"> • Device may be broken. • App may not be working//too many people on the app//too many people trying to book • Requires device/need to download app <p>The question explicitly states that the app is <u>being used</u> to book a class.</p>
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18		<p>Two marks available:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Number of people who attended (1). • Increase in membership applications (1). • Increase in number of people who upgraded their membership (1). • Increased in downloads (1) • Improved reputation (1) • Wider use of app (1) 	<p>2</p> <p>There will be other acceptable success criteria. To be acceptable, they must fit the scenario (attendance at an open event) and be an actual <u>and direct</u> success indicator – such as “increase in”....</p> <p>For example</p> <ul style="list-style-type: none"> • “membership retention”/“new customers” is TV • “improvement in membership retention”// “increase in new customer sign up rate”/“surge of new customers immediately after the event” is acceptable
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19		<p>One mark available for identifying IT presentation method and up to a further two marks for justification:</p> <ul style="list-style-type: none"> • Video/film (1st) e.g. <ul style="list-style-type: none"> ○ PFC could run the video on screens//use a projector (1) which would need no further interaction from instructors ○ the video being uploaded on YouTube (1) will enable visitors to view them after the event (1). • (A looped) slide show (e.g. PowerPoint) presentation//presentation software (1st) e.g. <ul style="list-style-type: none"> ○ PFC can include text with prices of the exercise classes as well as a video clip of the exercise classes (1) they can also include additional information such as membership to promote all of their services and products (1). ○ Videos can be embedded (from YouTube) (1) ○ Presentation software is more entertaining/engaging (1) ○ Can include effects (1) to draw attention to the presentation//make the presentation attractive (1) ○ Each class could be given a separate slide (1) so that information is organised (1) <p>BOTH</p> <ul style="list-style-type: none"> • Can be shown to many people (1) at the same time (1) 	<p>3</p> <p>This is a 1st mark answer, however, where method is TV, check whole answer before NOT awarding,</p> <p>e.g. method = virtual is TV, but candidate may expand on this in the justification</p> <p>Read the whole of the justification. Justification may be one developed point for two marks, or two separate points.</p> <p>Do not accept:</p> <ul style="list-style-type: none"> • Quicker/easier (but mark whole answer) • Answers based solely on hardware – for example, use a projector. However, use a projector to show a video, for example, is acceptable. • Multimedia
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20		<p>Two marks for <u>advantage</u> explained and two marks for <u>disadvantage</u> explained:</p> <p>Advantage: e.g.</p> <ul style="list-style-type: none"> • Structured response (1) <ul style="list-style-type: none"> ○ so that more likely to/will include all aspects//be successful (1) • Can collaborate with team members in real time (1) e.g. <ul style="list-style-type: none"> ○ so that each team member can deal with any issues are they arise (1). • Identify tasks (1) <ul style="list-style-type: none"> ○ and allocate resources to those tasks (1) • Allows document sharing (1) e.g. <ul style="list-style-type: none"> ○ Advantage of document sharing e.g. <ul style="list-style-type: none"> • allow all individuals to edit/ update the status of reports (1) • create systems that allow for transparency/communication(1). <p>Disadvantage: e.g.</p> <ul style="list-style-type: none"> • Complexity of the software (1) NB – NOT complexity of the plan/complicated plan e.g. <ul style="list-style-type: none"> ○ (in order to use them effectively) it takes time to learn how to use the features (1). <p>NB – where candidate says “it can be difficult/complex to understand” candidate can be given this as a BOD for first mark</p> <ul style="list-style-type: none"> • Staff may not know how to use the software (1) 	4	<p>Answer must be about the use of project management software. Where candidate discusses the use of other software, such as spreadsheet or diary software, or generic comments about project life cycle, do not award marks.</p> <p>Do not accept</p> <ul style="list-style-type: none"> • ‘cost’ as a negative implication • Data organisation benefits • Answers about use of the completed project (for example, “so know when to complete tasks”/ “can meet the aims and objectives”)
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			<ul style="list-style-type: none">○ And so training may be required (1)• Access control (1)<ul style="list-style-type: none">○ takes time setting up/maintaining access control(1)○ staff may be incorrectly blocked from accessing forms. (1)• Software can be hacked (1)<ul style="list-style-type: none">○ dates/tasks can be changed so that project fails (1)○ Information can be stolen (1)		
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21			<p>Two marks for benefit explained:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Trends and patterns can be spotted easily (1) because data is better targeted (1) • Able to (more easily) analyse (1) and so create saleable product (1) • Data can be more easily manipulated (1) to show trends and patterns (1) 	2	<p>This is a question about <u>statistical</u> data and why it is useful to the organisation that collects it NOT to the organisers of festivals.</p> <p>NB – this is not a first mark answer, therefore answer may be a combination of expansion points</p>
22	A	I	<p>One from:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Tablet (1) (Accept trade names). • Mobile/smart phone (1) • Notebook (1) • Laptop (1). 	1	<p>Do not accept:</p> <ul style="list-style-type: none"> • Computer (not mobile – TV) <p>Items which do not allow access to the internet e.g.</p> <ul style="list-style-type: none"> • microphone • voice recorder • Dictaphone • Camcorder

	A	II	<p>One from:</p> <p>Features (MUST match device given in 22 Ai):</p> <p>e.g.</p> <ul style="list-style-type: none"> ○ Small and compact (1) ○ Portable//easy to carry (1) ○ Light (1) ○ Long battery life (1) ○ Can be charged from battery pack (Do not award for laptop) ○ Can access/store to cloud (1) ○ Store responses (1) ○ Ability to back up information (1) <p>Impact</p> <p>e.g.</p> <ul style="list-style-type: none"> ○ Can be handed to a festival goer (to complete the questionnaire) (1). ○ Feedback based on immediate experience (1) ○ Increased number of responses (1) ○ Responses more relevant (1) 	1	<p>Only award if 22ai awarded.</p> <p>Mark first benefit given.</p> <p>Award any benefit that matches the device given in 22ai.</p> <p>Must be a direct benefit.</p> <p>This could be efficacy of the device, or a feature of the device that makes it suitable.</p> <p>Do not accept</p> <ul style="list-style-type: none"> • Generic answers – such as an improved quality of interview
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	B	<p>Indicative content = advantages and disadvantages to GD of using the data collection methods listed to collect data about the festival goers NOT <u>to user of the data</u></p> <p>Advantages e.g.</p> <ul style="list-style-type: none"> • Will be able to access new festival goers/in advance and identify their preferences based on the questions asked. • With email they can access festival goers who are based globally and may not attend all festivals • Could get responses from a wider audience e.g. from people who have not yet attended a festival but would like to. <p>Disadvantages e.g.</p> <ul style="list-style-type: none"> • Festival goers may not want to answer the questions as they enter the festival as they will be eager to get into the festival and get the best position to view the acts. • Emails may go into a person's Spam box and they do not know it is there until after the survey has finished • Not all festival goers may use social media (or the social media channels selected by). 	8	<p>NB – question refers to the three data collection methods outlined before 22ai</p> <p>Band 3: [6-8 marks]</p> <p>Candidate explains more than one advantage AND more than one disadvantage to GD of using the method(s) listed to collect data about the festival goers.</p> <p>Repeated mention of context (may be the same context, but used more than once)</p> <p>NB need not specifically consider all three methods and may treat all three methods as a collective</p> <p><i>Any relevant explanation of one advantage OR one disadvantage to GD of using the methods listed to collect data about the festival goers is sufficient for bottom of mark band.</i></p> <p>Band 2: [3-5 marks]</p> <p>Candidate describes more than one advantage AND more than one disadvantage to GD of using the methods listed to collect data about the festival goers.</p> <p>Relevant and appropriate contexts are provided to support narrative.</p> <p>NB need not specifically consider all three methods</p> <p><i>Any relevant description of one advantage OR one disadvantage to GD of using the methods listed to collect data about the festival goers is sufficient for bottom of mark band.</i></p>
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					<p>Band 1: [1-2 marks]</p> <p>Candidate identifies two impacts (positive or negative) of using the methods.</p> <p>0 marks No response worthy of credit.</p>
23			<p>Two marks available:</p> <p>Data type:</p> <ul style="list-style-type: none"> Limited choice (1) <p>Example: e.g.</p> <ul style="list-style-type: none"> Drop down list/radio button/tick list (1) Yes/No/Maybe (1) Clear understanding that choices are being offered/forced (1) <p>Data type:</p> <ul style="list-style-type: none"> Boolean/logic(al) (1). <p>Example: e.g.</p> <ul style="list-style-type: none"> YES/NO//True/false (1) (for examples accept ANY answer where ONLY two options are given) Drop down list/radio button/tick list (1) Clear understanding that is a binary option (1) 	2	<p>Further instruction:</p> <p>Example may be awarded even if data type is incorrect. Read whole of answer and award to candidate's best advantage.</p>

24		<p>Two from:</p> <p>Anti-virus software: e.g.</p> <ul style="list-style-type: none"> protects the system against threats from malicious software (1) e.g. keyloggers, rootkits, cyber attack etc (1). runs as a background process (1) <ul style="list-style-type: none"> restricting the spread of malware (1) blocks/prevents virii (1) from gaining access to computer (1) detecting virii (1) before they enter the computer (1) finds malicious files (1) by scanning files/hard disk/submissions (1). <p>Two from:</p> <p>Authentication methods for access purposes: e.g.</p> <ul style="list-style-type: none"> provides access control to the IT system only allowing authorised people (1) to access all / part of the system (accept reverse argument about not allowing unauthorised people(1). only allows authorised processes (1) to run (1). can implement multiple authentication factors to strengthen the protection against unauthorised access from people or processes (1) to the system(1). Checks/verifies individuals (1) so that only those who should be allowed onto the system are (1) 	4	<p>Read whole answer and mark to candidate's best advantage.</p> <p>Question is fundamentally about "how does the prevention method work" and answer should be technical in nature. Do not award marks for descriptions of anti-virus software or authentication in general.</p> <p>Please use NAQ if relevant</p> <p>Allow "stops their data/information from getting stolen" once only. May be used for either answer for a first answer .</p> <p>Do not accept:</p> <ul style="list-style-type: none"> data is protected from a virus (TV) any description of what a virus may do stops data from getting stolen etc (1)
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25		<p>One mark available for application software and up to a further two marks for justification:</p> <p>e.g.</p> <ul style="list-style-type: none"> • <u>Spreadsheet</u> (1st) <p>e.g.</p> <ul style="list-style-type: none"> • can include functions/formulae (1) to calculate results//add up data/figures//do complex calculations (1) • can produce graphs/charts (pictorial view) (1) of the outcomes/results of the research (1). • Individual cells can be used to store individual items of data (1) so data can be manipulated/interrogated (1) • can hold a lot of data (1) • <u>Database</u> (1st) <p>e.g.</p> <ul style="list-style-type: none"> • can set up queries (1) to search for specific entries (may give example – e.g. geographical locations) (1) • the tables can be set up as forms that mirror the questionnaires/surveys (1) so that data can be imported easily (into the database) (1). • can hold a lot of data (1) 	3	<p>Further information:</p> <p>Read the whole of the justification. Justification may be one developed point for two marks, or two separate points.</p> <p>Accept trade names</p> <p>Do not award marks for:</p> <ul style="list-style-type: none"> • can store etc • can analyse etc • can review/process • holds text/editable on own – needs to be more than generic statements about software • software easy to use ON ITS OWN (easy to find specific information is 1 mark – equivalent to “search for specific entries”) • general comments about business efficiency (“become more organised”). Answer MUST be specific to the use of the specific software.
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26		<p>Two marks for each reason explained:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Reflect (1) so that lessons are learnt (1) enables GD to look at how the project went//review project (1) and whether there is anything that should be considered when carrying out future and/or similar projects (1). • Identify project risk (1) which enables GD to identify project risks associated with budget, time, scope and quality (1). • Planning for the future (1) GD are able to consider recommendations from the project evaluation to implement into future projects (1). • Double check the system/compare the final outcome to the success criteria (1) so can check whether these have been met (1) • Compare the final outcome to the user requirements (1) so can check whether these have been met (1) 	4	<p>Do not accept</p> <ul style="list-style-type: none"> • To check the product ON OWN • Any reference to TESTING
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