

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 June 2022

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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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PREPARATION FOR MARKING ON-SCREEN

1. Make sure that you have accessed and completed the relevant and training packages for on-screen marking: *RM3 Online Training* and the *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the Instructions for On-Screen Marking and the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to RM3 and mark the **required number** of practice responses and the **required number** of standardisation responses.

PREPARATION FOR PAPER BASED MARKING

1. Make sure that you have accessed and completed the relevant training for paper-based marking.
2. Make sure that you have read and understood the Instructions for Specialist Marking and the mark scheme and the question paper for this unit.
3. Before the Standardisation meeting you must mark at least 10 scripts from several centres. Use **pencil** and follow the **mark scheme**. Bring these **marked scripts** to the meeting

MARKING INSTRUCTIONS – FOR MARKING ON-SCREEN AND FOR PAPER BASED MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the Scoris 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RM3 messaging system, or by email.
5. **Crossed Out Responses**
Where a candidate has crossed out a response and provided a clear alternative then the crossed-out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed-out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Multiple Choice Question Responses

When a multiple-choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only **one mark per response**)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth **two or more marks**)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Award No Response (NR) if:
- there is nothing written in the answer space.

Award Zero '0' ifo:

- anything is written in the answer space and is not worthy of credit (this includes text and symbols).

Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.

7. The RM3 **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**












If you have any questions or comments for your team leader, use the phone, the Scoris messaging system, or e-mail.

8. For answers marked by levels of response:

- To determine the level** – start at the highest level and work down until you reach the level that matches the answer
- To determine the mark within the level**, consider the following:

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

9. These are the annotations, (including abbreviations), including those used in RM3, which are used when marking

Stamp	Ref No.	Annotation Name
.....	151	Highlight
	1681	BP
	11	Tick
	201	TV
	811	SEEN
	1121	NE
	501	NAQ
	331	L3
	321	L2
	311	L1
	21	Cross
	31	BOD

MARK SCHEME

SECTION A					
Question			Answer/Indicative content	Mark	Guidance
1			For 1 mark: <ul style="list-style-type: none"> TRUE (1) 	1	Correct Answer Only (CAO)
2			For 1 mark: <ul style="list-style-type: none"> Number / numeric(al) / integer/real(1). 	1	Numeracy (1 + BOD)
3			One mark available: e.g. <ul style="list-style-type: none"> Defamation (of character) (1) False (1) Lie (1) Fake news (1) Hoax (1) Bias (1) 	1	<p>If candidate includes character assassination, libel, slander award one mark.</p> <p>This is NOT a legal exam. If the candidate attempts any of these and it is recognizably an attempt, you may award.</p> <p>Do Not Accept:</p> <ul style="list-style-type: none"> Cyber bullying Fraud Error
4			For 1 mark: <ul style="list-style-type: none"> Quid pro quo (1). 	1	<p>CAO</p> <p>Where two out of three words given award as BOD</p>

5		<p>One from:</p> <p>e.g.</p> <ul style="list-style-type: none"> • <u>Any form of biometrics</u> (1) • <u>Access rights</u> (1) • <u>Permissions</u> (1) • <u>Username(s)</u> (1) • <u>Password(s)/PIN</u> (1) • Authentication (1) • Token access (1) • Time lock//time out restriction (1) • Biometrics reader (1) 	1	<p>Accept ANY indication of any of these answers including where suggested within a sentence, such as “use a secure password”.</p> <p>Do Not Accept</p> <p>Physical methods e.g.</p> <ul style="list-style-type: none"> • Lock doors • Security guards
6		<p>TWO marks for a description:</p> <p>To look over = to see if = to check = review</p> <p>e.g.</p> <ul style="list-style-type: none"> • A review that is repeated (1) • A repeated check (accept “to see if” etc) //accept any indication of repetition of a check (Check MUST be clear) (1st) (of (review) and improvement (1)) • Occur throughout the project life cycle (1) • Occur at the end of every phase/stage/task/activity of the project life cycle (1st). <ul style="list-style-type: none"> ○ To check what went well (1) ○ So an improvement can be made (1) ○ Apart from final stage/evaluation (1) • Phase outputs are the input for the next phase (1). • Outcomes can have an impact on/inform next phase (1). • Actions are informed within the current phase (1). 	2	<p>Any indication of review at various times (eg each task NOT project). Look for PHASE, TASK or STAGE</p> <p>Read whole answer and mark to the best advantage. Description may be a point plus expansion, or two individual points.</p> <p>The focus here is on an iterative review, not just a review. There are no marks for a simple statement about what is meant by a review.</p> <p>An iterative review fundamentally happens throughout the lifetime of a project, not just at the end.</p> <p>Award any indication of a check done before the end of a project as a BOD (as this could be then followed by a second check).</p> <p>e.g. A review of what you have done so far (1) (BOD)</p> <p>Do not award:</p>

					<ul style="list-style-type: none"> • Where candidate has clearly answered about a final evaluation • Looks for positive//negative aspects of a project • Repeats a project • Review what you need to do for the project to succeed.
7			ONE from: <ul style="list-style-type: none"> • VOIP / voice over internet protocol (1) • Multimedia/web conference (1) • Video conferencing//call (1) 	1	<p>Mark first answer given.</p> <p>Accept brand names. Do NOT be overly pedantic about whether the brand identified fully fits the answers on the left hand side. However, be prepared to check on any brand name you do not recognize.</p> <p>Do not award:</p> <ul style="list-style-type: none"> • Podcast • Phone call • Microsoft Meet • A generic statement about using a webcam. • Internet

8		<p>Two marks available</p> <p>e.g.</p> <ul style="list-style-type: none"> • Weak (or equivalent (including “easy”) passwords (1). • Insecure (or equivalent) software applications (1). • Insecure (or equivalent) network/hardware/modem/router (1). • Out of date (or equivalent (accept “old” etc)) security/OS (1). • Out of date/No (or equivalent (accept “old” etc) firewall update (1). • Out of date/No (or equivalent (accept “old” etc) anti-virus software (1). • Lack of (or equivalent) firewall/ anti-virus software (1). • Lack of (or equivalent) staff training (on cyber-security issues) (1) • Employee disgruntlement (or equivalent) (1). • Lack of (or equivalent) security procedure//awareness (or equivalent) (1) 	2	<p>Mark first two insecurities given</p> <p>Where the candidate gives two answers (such as “weaker and insecure”), this is two answers. However, where an answer is NOT wrong, and is expanded on, this can be awarded..Do not confuse a clarification or a reiteration of an answer for a second answer.</p> <p>NB – Line numbers are for guidance only.</p> <p>MUST be an area that can be exploited and must be a statement with a clear or implied negativity.</p> <p>N.B. Award the gist of the answer given. For example, if candidate states the weakness given here within a more general answer –, award the mark.</p> <p>Where candidate uses one adjective followed by two areas, be prepared to award two marks if the adjective can correctly be applied.</p> <p>e.g. insecure software applications and router is two marks</p> <p>Do not award:</p> <ul style="list-style-type: none"> • Password, software, training etc on own. There must be an indication of failure, or risk • Where candidate states, for eg, “password” mark as NBOD • Where candidate refers to (for e.g.) a vulnerable network system, but gives no indication of why vulnerable, do not award and mark as REP • Lack of encryption (this is not a system vulnerability)
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SECTION B					
Progress Talent Show (PTS)					
9			<p>TWO from:</p> <p>May identify a document</p> <ul style="list-style-type: none">• Feasibility report (1).• Legislation (report/implications) (1).• Phase review (1). <p>May identify information e.g.</p> <ul style="list-style-type: none">• Constraints (1) (may be exemplified, including “user constraints”) (Accept “restraints” instead of “constraints” as a BOD) (NB, where two different constraints identified, this may be awarded two marks)• Next step(s) (1).• Customer/client/user requirements (may exemplify) (1)• Success criteria (1)• Time scales//timings (NOT time) (1)• (Information about) Target audience (1)• Budgets (1)• Hardware//Software requirements (1)	2	<p>Mark first two inputs given</p> <p>Where the candidate gives two answers, this is two answers. However, where an answer is NOT wrong, and is expanded on, this can be awarded if the expansion is correct.</p> <p>Do not confuse a clarification or a reiteration of an answer for a second answer.</p> <p>NB – Line numbers are for guidance only.</p> <p>Do Not Award:</p> <ul style="list-style-type: none">• Documentation TV• Project plan – TV

10		<p>Up to two marks for an explanation of ONE advantage of using a mind map to plan</p> <p>NB this is NOT a first mark question, therefore any answer given here – either as a first or an expansion, is acceptable for a standalone answer.</p> <p>e.g.</p> <ul style="list-style-type: none"> • Clear lays out ideas/visual representation/a clear plan (1) <ul style="list-style-type: none"> ○ therefore can see themes (1) ○ easier to understand (by (e.g.) all staff) (1) • Quick to create//quick to get ideas down (1) <ul style="list-style-type: none"> ○ therefore can move onto creation phase sooner (1) • Easy to add tasks / ideas (1) <ul style="list-style-type: none"> ○ so can be updated at any time/makes it more efficient (1) • Shows dependency (between tasks / subtasks) (1) <ul style="list-style-type: none"> ○ so can identify the order to complete (1) • Can help focus on the tasks (1) <ul style="list-style-type: none"> ○ so can see the links between them (1) • Can see the links between ideas (1) <ul style="list-style-type: none"> ○ So can generate a whole (1) • Uses images/words/graphics to organize thoughts (1) <ul style="list-style-type: none"> ○ which makes it easier to develop ideas (1) ○ see the whole picture (1) • The web designer will do a better job (1) • It can be developed to include further ideas (1) • It can be used to quickly jot down ideas (may use an equivalent term for “jot down ideas”) (1) 	2	<p>Mark first advantage given. However, where candidate gives two related terms – such as simple and not complicated, or a clarification or reiteration, treat these as one attempt.</p> <p>The first mark should be to identify the advantage and then state why this is an advantage. Where no advantage is given, you are going to struggle to give a further mark. However, there is a number of answers here where the advantage and the statement of why it is an advantage can be reversed.</p> <p>You can award quicker but only when what is quicker is identified (see BP 2 and expansion)</p> <p>Do not award:</p> <ul style="list-style-type: none"> • More creative • Easy/easier on their own • Can put ideas on it (on its own as an answer) TV • Its all spread out • The designer has lots of ideas • Inexpensive • It generates ideas (where the candidate is suggesting that the method itself generates the ideas – “use of a mind map will give a lot of ideas”) <p>e.g.</p> <p>“The advantage would be that they can put the ideas on it (0) and add more later (not awarded as this is a second advantage)”</p>
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11	a	<p>Up to three marks. 1st mark for identification of device, two further marks for justification:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Screen or equivalent//projector/interactive OR digital whiteboard (1st) (Whiteboard give as BOD) <ul style="list-style-type: none"> ○ so that the mind map can be seen by (1) all members of the project team (1) because its big (or equivalent to suit the hardware) (1) • Mouse (1st) <ul style="list-style-type: none"> ○ to move cursor (1) around screen (1) ○ to act as a pointer (1) to show different parts of the mind map (1). • Computer device (laptop/tablet etc) (1st) <ul style="list-style-type: none"> ○ to access (1) <u>saved</u> mind map (1). ○ FOR LAPTOP – portable (1) so can be taken from place to place (1) • Local hard drive, USB drive//stick, network drive, cloud storage (1) <ul style="list-style-type: none"> ○ to access (1) saved mind map (1) ○ to save onto (1) so can be shown (1) ○ can be password protected (1) 	3	<p>To be awarded marks for the justification, a mark must have been awarded for the hardware.</p> <p>NB Justification can be achieved by identifying two reasons why the tool is suitable or by expanding one answer. Read the whole answer, looking for two reasons or one expanded answer. Award to candidate's best advantage.</p> <p>Identification of the device may occur anywhere in the answer – the layout is a guide anywhere. Please read whole answer</p> <p>Allow hardware for remote access.</p> <p>Speakers and microphone and laptop//computer</p> <p>Do Not Accept</p> <ul style="list-style-type: none"> • USB • Mobile technology on its own TV, however, where the candidate then gives a device, marks may be awarded.
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11	b	<p>Up to three marks. 1st mark for identification of software, two further marks for justification:</p> <p>Presentation software/slide show software (1st) e.g.</p> <ul style="list-style-type: none"> • The software chosen is for purpose (1) • This software is widely available/used (1). • The software is used to present (things) (1) • This software creates slide shows (1) • The mind map (accept “images” or equivalent (NOT shapes)) can be inserted into (NOT display) a slide show (1) • Can zoom in on certain parts (1) • It is a visual format (1) • Includes templates (NOT a template for a mind map) (1) <p>DTP (1st) e.g.</p> <ul style="list-style-type: none"> • The software chosen is for purpose (1) • This software is widely available/used (1). • This software creates (e.g.) hand outs (1) • The mind map (accept “images” or equivalent (NOT shapes etc)) can be inserted into (NOT display) a handout (1) • It is a visual format (1) • Includes templates (NOT a template for a mind map) (1) <p>WP (1st) e.g.</p> <ul style="list-style-type: none"> • The software chosen is for purpose (1) • This software is widely available/used (1). • This software creates (e.g.) hand outs (1) 	<p>3</p> <p>Please note that the software list is a closed list, therefore you should only award from this list. If you see a different answer that you feel is suitable, please contact your team leader for advice.</p> <p>To be awarded marks for the justification, a mark must have been awarded for the software.</p> <p>NB Justification can be achieved by identifying two reasons why the tool is suitable or by expanding one answer. Read the whole answer, looking for two reasons or one expanded answer. Award to candidate’s best advantage</p> <p>Identification of the software may occur anywhere in the answer – the layout is a guide anywhere. Please read whole answer</p> <p>Accept trade names</p> <p>Do Not discriminate if a candidate gives a file type rather than a software type</p> <p>Do Not Award</p> <ul style="list-style-type: none"> • App • Answers to do with creation of the Mind Map – the mind map already exists. • Aspects of the software that are irrelevant to the context (such as animations can be used on ppt) • Its easy to create//use
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			<ul style="list-style-type: none">• The mind map (accept “images” or equivalent (NOT shapes)) can be inserted into (NOT display) a handout (1)• It is a visual format (1)• Includes templates (NOT a template for a mind map) (1)		
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12		<p>Up to FOUR marks available: Two marks per description of a disadvantage or an advantage <u>TO PTS</u></p> <p>Advantage (max 2 marks) of having the personal information OR of the method used (form, or email)</p> <p>e.g.</p> <ul style="list-style-type: none"> • You know who your applicants are (1st) • Increased in applications/contestants (1st) <ul style="list-style-type: none"> ○ Form is available 24/7 (1) ○ Form is not device dependent (1) ○ No geographical restriction on who can respond (1) • Information is up to date //current (1st) <ul style="list-style-type: none"> ○ Because its real time date ○ Because for is available 24/7 ○ The form is online (1) • Information is more accurate (1st) <ul style="list-style-type: none"> ○ Due to reduced chance of human error (1) • Lowers risk (of human error) (1st) <ul style="list-style-type: none"> ○ Because it is an automated process (1) ○ therefore data more accurate (1) • Database is automatically updated (1) <ul style="list-style-type: none"> ○ Because data is digital ○ Because data is online ○ Therefore o need to employ anybody (1) • You don't need to employ anybody (for inputting data) (1st) <ul style="list-style-type: none"> ○ Because its an automated process (1) ○ Therefore saving on wage bill (1) • Cheap/Saving on wage bill (1st). <ul style="list-style-type: none"> ○ Because its an automated process (1) • It can be collected and stored at any point in the day/night (1st). <ul style="list-style-type: none"> ○ Because its an automated process (1) ○ Form is available 24/7 (1) 	4	<p><u>For this question</u>, the advantage and disadvantage labels MUST be followed by the candidate unless there is a clear indication that they have swapped answer or other suitable rationale.</p> <p>Mark first attempt at an advantage or disadvantage. The second mark may then be why the advantage or disadvantage occurs OR the implications of that advantage</p> <p>For first mark ask yourself if it's a clear advantage to PTS, not just something about the method.</p> <p>e.g. It saves time is a clear advantage, its online is NOT an advantage.</p> <p>The expansion may be anywhere within the relevant section of the question paper. This means that where a candidate gives two advantages, for example "quick and easy", the first answer is quick and is awarded. Easy is a second attempt and so is ignored. IF the candidate then gives an answer that matches the first answer, a second mark can be given.</p> <p>This question is about collecting the data.</p> <p>This method is:</p> <ul style="list-style-type: none"> ○ Applicant must request a form. ○ The form is then sent to the applicant ○ The applicant completes the form ○ The form is sent back <p>Disadvantages or advantages may be drawn from any stage of that process.</p> <p>Do Not Award:</p>
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		<ul style="list-style-type: none"> ○ Because its online (1) • The data storage is more secure (1st) plus reason why OR implication of (1) • Reduces the risk of data being stolen (1st) plus reason why or implication of (1) • Quick (to distribute)// Many emails can be sent out at the same time (1st) <ul style="list-style-type: none"> ○ Therefore, less time consuming (1) ○ Therefore, get responses/more data more quickly (1) • Able to link the data to the applicant (1st) <ul style="list-style-type: none"> ○ Because you have their (e.g.) names (1) ○ Therefore, can contact them (1) <p>Disadvantage (max 2 marks) NB many of these answers can be paired for two marks:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Applicant/PTS may not see//open/access the email (1) because it goes into Spam (1) • Reduced data (1) • The form may not be received (by PTS) (1) • Form may be filled in incorrectly (1) negatively impacting on data collected (1) • The fields (on interactive form) must be compatible with the software on PTS's/applicant's system (1). • Applicant return may not be complete (accidental/intentional) (1) • If the applicant has a virus/malware (1) • There may applicants who don't have computer access/email (1), therefore not have a good range of entrants (1) (second answer is acceptable in its own right). 		<ul style="list-style-type: none"> • Easy to use to gather data as an advantage OR an extension (see next bullet point) • Easy to use unless includes an extension (e.g. easy to access with an internet connection (1)) • Email will not be received (it will be received – just not seen) • Efficiency on its own – however, where explained, this can be awarded. • Email “can get spammed” – TV • Converse arguments as the second answer • Better engaged • Data can be stolen//hacked
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13		<p>Indicative content</p> <p>Logical prevention measures:</p> <ul style="list-style-type: none"> • Usernames and passwords • Access rights and permissions • Anti-virus software • Authentication (e.g. token code) • Encryption • Secure backups of data • Emerging measures (e.g. phone authentication app) • Biometrics • Software patches and updates <p>How they mitigate risk:</p> <p>For example:</p> <ul style="list-style-type: none"> • Preventing unauthorized access to the system. • Restricting access to approved users. • Mitigate risks against cyber-attacks. • Encryption prevents attacker from reading stolen data/information. 	10	<p>Band 3: [8-10 marks]</p> <p>Explanation must be how it achieves the reduction in the impact of//chance of a cyber security attack</p> <p>Learner explains at least one logical prevention measures with clear links to the protection of data/information of the entry information.</p> <p>Specialist terms will be used correctly and appropriately.</p> <p>Band 2: [4-7 marks]</p> <p>Learner describes at least one logical prevention method.</p> <p>Specialist terms will be used appropriately and for the most part correctly.</p> <p>Band 1: [1-3 marks]</p> <p>Learner has identified at least one point relating to logical prevention measures. There will be little, if any, use of specialist terms and link to the narrative.</p> <p>0 marks No response worthy of credit.</p>
14		<p>ONE mark available:</p> <ul style="list-style-type: none"> • <u>Health and Safety</u> at Work Act (1). • VDU Regulations (1). 	1	<p>Mark the FIRST attempt at an answer</p> <p>It is NOT necessary to have the date provided.</p>

15		<p>An explanation of the importance of a final project evaluation to include:</p> <p>Make sure = check Checking that meets requirements = is correct = is not wrong</p> <p>NB some of these answers are 1st mark answers, others are not.</p> <p>Also, emphasis MAY be on the use of the web designer to do the project</p> <p>e.g.</p> <ul style="list-style-type: none"> • The web designer is an expert (1) • To see what went well (1) and learn from issues (1) • To measure success (1st) against criteria (1)//Use success criteria (1st) to measure success (1) • Assess overall success (1) • To learn lessons (1) both good/bad experience of the project (1) • To inform future actions/future projects (1). • To check that the website meets (1st) defined requirements (1) measured against success criteria (1) • To check that the project is correct (ly completed) (1) because the client would get annoyed otherwise (1) and not pay (1) • Identify deviations (1st) from the agreed plans (1) plus suitable reason/action as a consequence/because there could be mistakes (etc) (1). • To define maintainability of website (1) including possible future developments (1). 	3	<p>Up to three marks for a complete explanation</p> <p>Mark first reason given. However, explanation can come from the whole body, so please read whole answer, looking for explanations of the reason awarded.</p> <p>Do not confuse a clarification or a reiteration of an answer for a second answer.</p> <p>Do Not Award:</p> <ul style="list-style-type: none"> • Answers about checking if the outcome works <p>e.g. "To make sure that website is in working order" – this is confusing the evaluation with testing</p>
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			<ul style="list-style-type: none">• To see if anything is left out (1st) so that it can be fixed (1) or else it will not meet requirements (1)• To check that all aspects of the project (1) have been completed (NOT “are working”) (1)• To see what you have you done well and what could be improved (1)		
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SECTION C Progress Talent Show (PTS)				
16			For 1 mark: e.g. <ul style="list-style-type: none"> • (Bar code) reader (1). • <u>Phone</u> (1) • <u>Scanner</u> (1). • <u>Lazer reader</u> (1) • <u>Tablet</u> (1) 	1 Do not award: <ul style="list-style-type: none"> • QR code reader- The scenario states the tickets have a bar code.
17			One mark for a correct characteristic of either data modification or manipulation Data manipulation (to influence, manage, direct, control or tamper) e.g. <ul style="list-style-type: none"> • Has a <u>reputational</u> impact on individuals or companies (1) • Is done so that fake news can be justified//supported (1). • Harder to identify information changes//detect (1). • Not always a tangible financial gain (1) • Can cause disruption (to a business) (1) • Is an internal culprit (1) • Always intentional (1) • Always fraudulent (1) • Always a malicious attack (1) 	2 Up to two marks for TWO comparative statements – as long as they are paired as differences. To be awarded full marks, both manipulation and modification must be included. Data manipulation = Data is edited usually to meet the needs of cyber-attackers. Data modification = Also changes data but for different reasons. Do not award: <ul style="list-style-type: none"> • Repetition of the question (mark as REP) • Data is changed - this true of both areas and so is not a difference. • Stealing data

		<p>Data modification (to make partial changes, adapt, alter, amend, revamp, reword)</p> <p>e.g.</p> <ul style="list-style-type: none"> • Has a financial impact on individual or companies (1) • Not always intentional//can be accidental (1) • Can be internal or external (1) • Is easier to detect//quicker//more obvious (1) • Could be a genuine mistake (with no intent to be malicious) (1) 		
18		<p>Up to TWO marks per explanation</p> <p>An explanation of two benefits to PTS of using the data from customers to include:</p> <p>e.g.</p> <ul style="list-style-type: none"> • You know who your customers are (1) and so can offer (them) a loyalty scheme (1) • Existing customer information can be searched (1) to identify suitable customers for future events (1). • Existing information can be saved (1) compared to collecting new information on the same customer (1). • Information can be shared within the company (1) to target different events for their customers (1). • It can inform future events (1) based on customer preferences (1). • Secondary data can be sourced (1) to support existing information/add to customer information they already have (1). • PTS can grow their customer data (1) supports big data analysis (1). • Do not need to buy the personal data (1) therefore cheaper (You can accept “cheaper” on its own) (1) 	4	<p>This question is about use of the personal data.</p> <p>Shows a member of staff (in widest sense) who has bought tickets</p> <p>Candidate may answer as an extended piece of writing. which flows on from an initial point. Numbers on lines are for reference only. Where candidate bases answer on demographics, different demographics may each be awarded marks. This is not repetition. NB two demographics may have the same outcome.</p> <p>You can accept financial status as an item of personal data</p> <p>Do Not award:</p> <ul style="list-style-type: none"> • Converse arguments as the second answer <p>e.g. you know who has bought tickets (1 mark here) and you know who has not bought tickets (0)</p> <ul style="list-style-type: none"> • Repetition of benefit. However, please note where an explanation mark has not been given for the first benefit, an explanation mark may be awarded from the second response if this is correct.

19		<p>TWO marks for any form of chart that presents e.g.</p> <ul style="list-style-type: none"> • Pivot (1). • Line (1). • Bar (1). • Pie (1). • Scatter (1) • Column (1) • Comparison (1) • Combination (1) • Area (1) • Scatter (1) 	2	<p>Do Not Award:</p> <ul style="list-style-type: none"> • Graph (on its own) (TV) – however, if candidates states, for example, Bar Chart/Graph, this is an attempt to clarify and is NOT a second answer. • Dynamic chart • Tally chart • Flow chart
20	a	<p>ONE mark for any feasible and sensible software that will allow the creation of a task list: e.g.</p> <ul style="list-style-type: none"> • Word processor (1). • Spreadsheet (1). • Diary Software (1). • Database (1). • Suitable app (1) • Personal Information Manager (1) 	1	<p>Mark first attempt at answer</p> <p>Accept Trade Names</p> <p>Do Not discriminate if a candidate gives a file type rather than a software type</p> <p>Do Not Award</p> <ul style="list-style-type: none"> • Specialist software with an entirely different focus, such as Gantt Chart software

20	b	<p>TWO marks for an explanation of one advantage of using a task list:</p> <p>e.g.</p> <ul style="list-style-type: none"> • A task list is easy to follow (1) because it shows one task at a time (1) (This is a generic answer) • No tasks will be missed out (1) • Accept any notion of planning leading to success e.g. Increased chance of success//will succeed (may exemplify) (1) as the project is planned (1) • It's a to do list (1) so can tick off tasks as completed//as you go along//as you make progress (1) • Helps you identify all tasks for completion (1) so less risk of tasks being missed out (1). • Resources can be clearly allocated (1) so tasks are completed to schedule (1). • You can renumber/re-sequence tasks (1) which helps you to prioritise. (1). • Easy to use (1) therefore more likely to be used//more likely to succeed (1) 	2	<p>Up to two marks for a complete explanation of an advantage of using a task list for planning</p> <p>Accept a generic explanation of the advantage of a task list, or of an advantage to PTS</p> <p>Mark first advantage only. Explanation of that advantage may be anywhere in the answer, but must refer to the advantage that is being considered.</p> <p>Answer should be in the form of identifying a positive impact and stating why it is an advantage – this is likely to be an implication of the initial positive impact</p> <p>Do Not Award:</p> <ul style="list-style-type: none"> • Any answer based on agreement more likely to happen, for example. • Know how much time should be allocated to task
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SECTION D Ski Progress (SP)				
21		<p>A discussion of the advantages and disadvantages of using a PERT chart to plan each ski trip.</p> <p>Indicative content:</p> <p>IGNORE “EACH” SKI TRIP FOCUS</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Milestones can be planned. • Can help SP know the time schedule of project. • Tasks can be scheduled. • Task sequences can be clearly defined. • Tasks / sub tasks can be defined as concurrent / dependent. • Can see the activities associated with each task. • Can identify the time duration of each activity/task. • A critical path can be defined. <p>Disadvantages:</p> <ul style="list-style-type: none"> • Creators need knowledge and skills. • Could be confusing to users. • Can be limited if lots of activities are planned. • Can be difficult to (accurately) predict time allocation//estimates may be wrong (NOT cannot predict timings – do not accept). • Time-consuming to create and continuously update planning tool. 	8	<p>Band 3: [6-8 marks]</p> <p>Learner explains at least one advantage AND disadvantage to SP of using a PERT chart to plan each ski trip.</p> <p>Specialist terms will be used correctly and appropriately.</p> <p>Band 2: [4-5 marks]</p> <p>Learner describes at least one advantage OR one disadvantage of using a PERT chart to plan each ski trip.</p> <p>Specialist terms will be used appropriately and for the most part correctly.</p> <p>Band 1: [1-3 marks]</p> <p>Learner has identified at least one point relevant to a planning tool. There will be little, if any, use of specialist terms.</p> <p>0 marks No response worthy of credit.</p>

22		<p>An identification of the type of visibility, with a justification, to include:</p> <ul style="list-style-type: none"> Targeted / target (1st) <p>e.g.</p> <ul style="list-style-type: none"> The webpage is provided to a specific audience (1) the parents (1). 	<p>3</p> <p>1st mark for identification of visibility, 2nd / 3rd marks for justification.</p> <p>To be awarded the justification mark, a mark for the type of visibility must have been awarded.</p>
23	a	<p>TWO from:</p> <p>Award ANY two actions that could feasibly be used by SP to raise awareness</p> <p>e.g.</p> <ul style="list-style-type: none"> Word of mouth (1) Poster campaign (1) Article in parish magazine//newsletter (1) Presentation (1) Public email (1) “How to” guide (1) Update website to include a warning (1) (see comment in Do Not Award) Can give advice (1) Can inform//tell (1) Hold a meeting (1) Hold an assembly (1) 	<p>2</p> <p>Mark first two actions given</p> <p>Must be a method of giving information taken by SP</p> <p>Do not award a second method based on the same action – for example, an article in the parish magazine and the club magazine are the same, and so should not be awarded, but an article printed in a magazine and a radio advert using the same words, can be considered as different, as may a video and a radio advert.</p> <p>Award the action that is being done, rather than the items in it – for example</p> <p>Do Not Award:</p> <ul style="list-style-type: none"> Use pictures Use words <p>Furthermore, do not award</p> <ul style="list-style-type: none"> Advise – must be an action HOWEVER Give advice about X may be awarded a mark Where it is clearly not giving information <ul style="list-style-type: none"> Update website to reduce chance of attacks

23	b	<p>ONE mark available:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Slide show (1) • Email (1) • Report (1) • Newsletter (1). • Information guide (1) • Multimedia (1). • Integrated document (1) • Tables (1). • Diagram (1) • Hold an online meeting (1) • Website (1) <ul style="list-style-type: none"> ○ Blogs (1) ○ vLogs (1) 	1	<p>Mark first attempt at an answer.</p> <p>Award ANY method by which guidance can be shared, as long as ICT is involved in its delivery or creation.</p> <p>You CAN award identification of the software on which these items are created. Accept Trade Names.</p> <p>Do Not Accept</p> <ul style="list-style-type: none"> • Presentation on its own • Meeting on its own • Any answers that do not emphasise the ICT
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24		<p>An explanation of one benefit and one drawback for the use of big data to include:</p> <p>Benefit (Max 2): e.g.</p> <ul style="list-style-type: none"> • Can see patterns/trends (1) to produce comparative evidence against other ski trips (1) which could be used for improvement to their service (1 – extension only NOT standalone) • (because it's a lot of data) there is a variety of responses (1) and used to make better/more informed decisions//better outcomes (accept "results") (1). • Allows (positive) comparison with a wider picture (1st leading to (positive implication – to be identified by candidate) (1) • It includes data from other trips (1) so wider //better quality//more reliable comparisons can be made//similar issues/remedies identified (1) • It is data on a large scale (1) so comparison is more valid (1) (and so) truly highlights what needs to be done//decisions (based on the data set) are more valid (1) • Makes decision making easier (1) • Searches can be used (1) to find the specific data required (1). • Resources not wasted collecting the information (1) so therefore can be used for other activities (1). • Helps you to design new products/services (1) because you can easily identify trends/patterns (1). • Gives you information in a number of areas (1) which can assist in monitoring reputation (1). 	4	<p>Read whole answer for benefit & drawback and mark to candidate's advantage.</p> <p>GIGO (Garbage in, Garbage out) can be awarded 1 mark for a drawback if no further detail is provided.</p> <p>Answers about having too much data own its own is NE, but an implication of having too much data is</p> <p>Do Not Award:</p> <ul style="list-style-type: none"> • Any answer solely related to being a lot of data (this applies to benefits and drawbacks). However, an implication of having lots of data – such as there will be a variety of responses, is acceptable. • All data is stored in one place • Data takes a long time to collect • Data can be cyber attacked - TV
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		<ul style="list-style-type: none"> • A range of data sources can be used (1) which can deepen the data available for analysis (1). • Any other valid suggestion. <p>Drawback (Max 2): e.g.</p> <ul style="list-style-type: none"> • Allows (negative) comparison with a wider picture (1st) leading to backlash/(negative implication to be identified by candidate) (1) • It is not always possible to know if the data is correct (1) so therefore wrong assumptions can be made (1). • Errors in the data (1) may have a negative impact on the company (1). • The exact range of data required may not be available (1) which increases chances of failure (1). • Data may be get leaked to a third party (1) which will ruin reputation/open up to legal challenge/affects profits (1). • Potential customers may not want to provide data especially if it is of a personal nature (1) so therefore challenge to develop customer base (1) • Requires a lot of storage space (1) • Would take time to transfer (1) • Can be hard to analyse (1) • Take a long time to process (NOT there's too much of it) (1) • Any other valid suggestion. 		
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SECTION E				
Ski Progress (SP)				
25		<p>An identification of the type of methods to collect feedback, with descriptions:</p> <p>e.g.</p> <ul style="list-style-type: none"> • Online questionnaire (accept that a questionnaire is accessed via a link as enough for this to be awarded. NB, via a link is also worth a mark) (1st) <p>e.g.</p> <ul style="list-style-type: none"> • Fast data collection method (1). • Often includes closed questions (1). • Get responses to objective questions (1) for example the percentage of children that went skiing rather than snowboarding (1). • Accessed through a web browser/website (1). • Parents and children to complete/submit their responses online (1). <p>e.g.</p> <ul style="list-style-type: none"> • Survey (1st) <p>e.g.</p> <ul style="list-style-type: none"> • Includes open questions (1) • Includes closed questions//option list//limited response (1). • Used to aggregate/analyse responses (1) – often qualitative/quantitative data (1). • A longer process to complete because some questions seek opinions (1). <p>e.g.</p> <ul style="list-style-type: none"> • Interview (1st) 	6	<p>In each of 2 cases: 1st mark for identification of method 2nd / 3rd marks for description.</p> <p>Where a candidate gives an answer in the format form/survey, you may take this as ONE attempt. However, where the methods identified are clearly different methods, this is two – so form/interview, for example, are clearly different methods and so this is two attempts.</p> <p>Where candidate identifies a further method as an extension to a method – such as “include a link to a questionnaire”, this is not necessarily a separate identification of a method, but is a description of the original method. However, this could be – so read the whole answer and award to best advantage. MARK THE INTENTION.</p> <p>To be awarded the description marks, a mark for the type of method must have been awarded.</p> <p>Accept ANY description – could be about how it works, or how it is used. Or any benefit. Can also give marks for identification of what is collected</p> <p>The methods here are examples. Accept any other suitable method.</p> <p>Further acceptable methods include but are not limited to:</p> <ul style="list-style-type: none"> • Social media • Website reviews • Emails

		<p>e.g.</p> <ul style="list-style-type: none"> • Two way dialogue between company and parents/children (1). • Face to face (1) • Normally an oral data collection method (1). • Asking people questions and recording responses (1). • Allows you to pick up data that you would not naturally get through other collection methods (1). <p>e.g. Email</p> <p>e.g.</p> <ul style="list-style-type: none"> • Quick way to gather feedback (1) 		<ul style="list-style-type: none"> • Polls
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26	<p>An identification two different types of presentation method used in an integrated document , with justifications:</p> <p>Two from:</p> <ul style="list-style-type: none"> • Tables • Charts • Graphs • Images/diagrams/screenshots • Audio • Text <p>Possible justifications include: (MUST fit the method)</p> <p>e.g.</p> <ul style="list-style-type: none"> • Good for summarising (1). • Information can be seen clearly (1). • Easy to understand format (NOT easy to read) (1). • Good for comparisons (1). • Better at reporting numerical data (1). • Can support calculations (1). • Makes results (more) understandable (1). • A clear visual of results (1) • Can help users visualise data (1). • Titles / labels can be used to put graph into context (1). • Can show comparisons between answers from feedback (1). • Numeric information can be clearly shown (1). • Trends / patterns can be identified (1). • Can build on a table to provide further analysis (1). • Improves accessibility to all (1) 	<p>6</p> <p>Ignore ANY mention of a software title by name (trade OR type) – this is not an attempt and is not an answer, so even where given, these are NOT to be treated as attempts</p> <p>Numbers are for guidance only.</p> <p>Award first two presentation methods given. However, where a candidate states a method and then exemplifies the method – such as Chart e.g Bar Chart, this is NOT a second try, but an exemplification.</p> <p>NB Justification can be achieved by identifying two reasons why the presentation method is suitable or expanding one answer. Read the whole answer, looking for two reasons or one expanded answer. Award to candidate's best advantage.</p> <p>Identification of the presentation method may occur anywhere in the answer. This is especially true where the candidate gives a software type for this presentation method. Please read whole answer</p> <p>Justification MUST be linked to the use of the method to display the results of the research. Justifications to do with parents or teachers enjoying themselves (for example) are irrelevant and should not be awarded.</p> <p>Justifications based on how the element can be created are irrelevant and should be marked NAQ</p> <p>Charts/graphs may be awarded twice where the candidate has stated two different <u>types</u> of chart or graph. Where candidate says chart/graph and then gives an example, this is repetition. HOWEVER, you</p>
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			<ul style="list-style-type: none"> Provides an audio explanation (do not accept “you can listen to it”) (1) 		<p>may consider the whole of the answer for justification and award to candidate’s best advantage.</p> <p>Justification can be of the form despite X, this is still good because.....</p> <p>Do Not Award:</p> <ul style="list-style-type: none"> “Hyperlinks” as a presentation method, HOWEVER, “hyperlinks” can be a justification for an image, for example because you can attach a hyperlink to an image (1) to go to the results (1). <p>In this case, the candidate must use (e.g.) image with hyperlinks NOT image and hyperlinks – treat “hyperlinks” for this second example as an attempt at a separate method.</p> <p>Therefore, if you see hyperlinks, DO NOT automatically take this as a wrong attempt.</p> <ul style="list-style-type: none"> They are simple Easy to understand (you can accept easier to understand) Software titles Forms Reports
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