

Cambridge Technicals

IT

Unit 2: Global information

Level 3 Cambridge Technical in IT
05838 – 05842 & 05877

Mark Scheme for June 2024

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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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MARKING INSTRUCTIONS**PREPARATION FOR MARKING****RM ASSESSOR**

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood 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 RM Assessor and mark the **required number** of practice responses (“scripts”) and the **number of required** standardisation responses.

YOU MUST MARK 5 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

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 Batch 1 and Batch 2 (100%) 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 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.

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. Always check the pages (and additional lined pages if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add an annotation to confirm that the work has been seen.
7. Award No Response (NR) if:
 - there is nothing written in the answer spaceAward Zero '0' if:
 - anything is written in the answer space and is not worthy of credit (this includes text and symbols).
8. The RM Assessor **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 RM Assessor messaging system, or e-mail.
9. Assistant Examiners will email a brief report on the performance of candidates to your Team Leader (Supervisor) by the end of the marking period. Your report should contain notes on particular strength displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.
10. 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

11. Annotations - These are the annotations to be used when marking Unit 2:

Annotation	Meaning	Annotation	Meaning
	Tick – correct answer		Benefit of doubt
	Cross – incorrect answer		Blank Page
	Too vague		Max
	Repeat		Noted but no credit given
	Unclear		Not relevant
	Level 1		NAQ
	Level 2		
	Level 3		

12. Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

Question			Answer	Marks	Guidance
1	(a)		<ul style="list-style-type: none"> Alphanumeric / numeric(al) (1st) Date of Birth / (emergency contact) telephone number (1) Boolean (1st) Allergy (1) Any other valid suggestion 	4	<p>2 marks to be awarded for each of two rows</p> <p><i>The Column heading and information style must be linked</i></p>
1	(b)		<p>An explanation of the importance of good quality information being entered into the ‘Details of allergies’ column to include:</p> <ul style="list-style-type: none"> So PHBC know (1) to check food ingredients (1) or an allergic reaction could happen (1) To ensure (1) that the correct medication is provided (1) if an allergic reaction occurs (1) So pupils are provided (1) with the correct equipment / specialist clothing (1) to reduce chances of allergic reaction when outdoors (1) If incorrect / bad quality information (1) is entered, (1) then a pupil may eat a food containing an ingredient they are allergic to (1) Any other valid suggestion 	3	<p><i>Up to 3 marks for a complete explanation.</i></p> <p><i>Read whole answer & mark to candidates advantage</i></p> <p><i>The focus is why the allergy field should contain good quality information and not a general description of allergies or what is meant by good quality information.</i></p>
2	(a)		<p>The identification of 2 actions to be taken to comply with the DPA to include:</p> <ul style="list-style-type: none"> Check (client’s) data is up to date (on a regular basis) (1) Not to collect excessive data (1) Not use the data for any other purpose that that it was collected for (1) To delete data when no longer required (1) To provide training for staff (1) To register with ICO (1) Appoint a data controller (1) Any other valid suggestion 	2	<p>1 mark each for 2 actions</p> <p><i>DNA any answer relating to security as this is discounted in the question.</i></p>

Question		Answer	Marks	Guidance
2	(b)*	<p>A discussion of the impacts & consequences of non-compliance with DPA to include:</p> <p>Impacts</p> <ul style="list-style-type: none"> Financial impacts <ul style="list-style-type: none"> Fine from ICO Compensation to data holders Reduction in customers Stop of business activities Operational disruption <ul style="list-style-type: none"> If a data breach has occurred Time <ul style="list-style-type: none"> Security /logical / physical will need to be reviewed & increased Any other valid suggestion <p>Consequences</p> <ul style="list-style-type: none"> Damage to reputation <ul style="list-style-type: none"> Loss of customers / MAT Less income for PHBC Increased costs <ul style="list-style-type: none"> New hardware New software New security protection Staff training Loss of trust <ul style="list-style-type: none"> Customers / MAT who have contact data stored Any other valid suggestion 	10	<p>Mark band 3 (7 - 10 marks) At the top of the level a thorough discussion which shows detailed understanding:</p> <ul style="list-style-type: none"> Explained more than one impact and consequence of non-compliance with the DPA Included relevant examples related to the PHBC / MAT which are used to support discussion <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i> <p>Mark band 2 (4 – 6 marks) At the top of the level an adequate discussion which shows sound understanding:</p> <ul style="list-style-type: none"> Described at least one impact or consequence of non-compliance with DPA Included some examples which may not be relevant and may at times detract from fluency of narrative. <i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i> <p>Mark band 1 (1 – 3 marks) At the top of the level a basic justification, which shows limited understanding:</p> <ul style="list-style-type: none"> identification of generic points limited use of subject terminology <p>0 marks Nothing worthy of credit.</p>

Question			Answer	Marks	Guidance
3	(a)		Encryption in transit: <ul style="list-style-type: none"> • Payment of deposit / final cost of course (1) • Pupil List / online forms (1) Password: <ul style="list-style-type: none"> • To access secure area for resources (1) 	2	1 mark for correct identification of when each method is used by PHBC
3	(b)		Encryption in transit <ul style="list-style-type: none"> • Details are encrypted before sending (1) a key is needed to unencrypt / if it is intercepted it is meaningless / cannot be understood (1) • Any other valid suggestion Password <ul style="list-style-type: none"> • Only those (1) with the password can access the data (1) • A correct password (1) will need to be entered for access to data (1) • Any other valid suggestion 	4	Up to 2 marks for each description of how the method protects the data. This can be marked irrespective of the marks awarded for Q3(a)
4	(a)		The identification of a physical protection method to include: <ul style="list-style-type: none"> • Locking away in the equipment building (1) • Storing the tablet above flood level (1) • Biometric (devices) (1) • Any other valid suggestion. 	1	Do not accept Security Guard as this would not be appropriate in the context Accept examples, e.g finger print recognition, of biometrics Lock on its own is TV
4	(b)		<ul style="list-style-type: none"> • Handheld (1) • Portable (1) • Any other valid suggestion 	1	

Question		Answer	Marks	Guidance
4	(c)	<p>The description of an advantage and disadvantage to PHBC using the tablet to live stream the talent show to include:</p> <p>Advantage</p> <ul style="list-style-type: none"> • The tablet is light / not heavy (1) so can be held for the whole talent show (1) • A tablet is portable (1) so can be moved to show different angles / areas of the talent show (1) • The orientation (1) can be changed to show portrait / landscape (1) • Audio can be included (1) using a built-in microphone (1) • Any other valid suggestion <p>Disadvantage</p> <ul style="list-style-type: none"> • The battery may run out (1) if the tablet is not fully charged (1) • The light may not be good (1) the tablet may not have built-in lighting (1) • The audio may not be clear (1) as the microphone may not pick up all audio (1) • Wi-fi connection is needed (1) which may not have a stable connection (1) • A tablet can be damaged / broken (1) if dropped (1) • Any other valid suggestion 	4	<p><i>Up to 2 marks each for a description of an advantage and disadvantage</i></p> <p><i>Read whole answer & mark to candidates advantage</i></p>

Question			Answer	Marks	Guidance
4	(d)		<p>A description of an advantage of the talent show being live streamed, to include:</p> <ul style="list-style-type: none"> Parents / carers are not on the course / at the woodland site (1) so are able to watch the talent show (1) The talent show can be watched from any location (1) as long as a suitable device / broadband access is available (1) Parents / carers do not have to download extra software (1) saving on storage space on their device (1) Any other valid suggestion 	2	<p><i>The focus of the question is the parents / carers</i></p> <p><i>Up to 2 marks for a description of an advantage to the parents & carers</i></p> <p><i>Read whole answer & mark to candidates advantage</i></p>
4	(e)		<p>A description of a disadvantage of the talent show being live streamed, to include:</p> <ul style="list-style-type: none"> The live streaming hosting provider (1) may be out of service / intermittent service (1) The wi-fi signal may be lost (1) meaning the show cannot be streamed (1) The show requires a stable connection (1) which may not be available in a woodland site (1) The tablet may run out of charge / battery (1) before the show has ended (1) If the weather is bad / raining / windy (1) the sound / picture quality will not be good (1) The live stream may be hacked / have a virus attached (1) different images could be shown on the live stream (1) Any other valid suggestion 	2	<p><i>The focus of the question is PHBC</i></p> <p><i>Up to 2 marks for a description of a disadvantage to PHBC</i></p> <p><i>Read whole answer & mark to candidates advantage</i></p>

Question	Answer	Marks	Guidance
5	<p>The description of an advantage and disadvantage to the PHBC of the instructional videos to include:</p> <p>Advantage</p> <ul style="list-style-type: none"> • The videos may encourage more schools / MAT's (1) to take part in the courses run by PHBC (1) • The videos can be viewed by anyone / parents / children / MAT (1) can see what activities can take place / increasing brand / PHBC awareness (1) • The videos can be used for those with an auditory impairment (1) if subtitles are included (1) • The new staff will know what the activities are (1) so they will know how activities will be completed (1) • Safety considerations can be shown (1) meaning the pupils know what to do / how to behave (1) • Pupils can practice some of the activities / example (1) before attending the course / at school / MAT (1) • Any other valid suggestion <p>Disadvantage</p> <ul style="list-style-type: none"> • If new activities are introduced (1) new videos will have to be made with expense of staff time / money (1) • Videos will have to be checked (1) to ensure the activity shown complies with latest H&S advice (1) • The quality of the video may be low (1) so the activity / instructions may not be clear (1) • The video may buffer / lag (1) and not be correctly shown (1) • Pupils with a disability may not be able to understand (1) if no subtitles / examples are included (1) • Pre-conceived attitudes (1) may be formed by the pupils (1) • Any other valid suggestion 	4	<p>Up to 2 marks each for a description of an advantage and disadvantage</p> <p>The focus of the Q is PHBC but accept generic advantages / disadvantages such an internet connection being needed to view</p> <p>Read whole answer & mark to candidates advantage</p> <p>DNA theft of video / use of video by other organisations / schools etc</p>

Section B – Insurance Company													
6	(a)		<ul style="list-style-type: none">Public (1)Open Access (1)Global / worldwide (1)Any other valid suggestion	2	<i>The identification of 2 characteristics of the internet for 1 mark each</i>								
6	(b)		<ul style="list-style-type: none">Mobile data (Network) (1)Wi-Fi (hot spot) (1)Wireless (1)Satellite (1)3G / 4G / 5G (1)	1	<i>1 mark for identification</i> <i>Do not accept GSM</i>								
6	(c)		A comparison of static & dynamic webpages to include: Static / Dynamic <ul style="list-style-type: none">The content stays the same / The webpage is built afresh every time it is loadedEvery user sees the same content / The content changes based on user behaviour/ cookiesTo change must be edited by the author / authorised person / Refresh based on criteria set by the webserverQuicker to load than dynamic / Takes more time to load than static due to changing contentAny other valid suggestion	4	<table><tr><td>4 marks</td><td>2 complete comparisons</td></tr><tr><td>3 marks</td><td>1 comparison + 1 point about either side</td></tr><tr><td>2 marks</td><td>1 complete comparison</td></tr><tr><td>1 mark</td><td>1 point about either side</td></tr></table> <i>MAX 1 mark if answer in 2 distinct paragraphs or if points are distinctly separate.</i>	4 marks	2 complete comparisons	3 marks	1 comparison + 1 point about either side	2 marks	1 complete comparison	1 mark	1 point about either side
4 marks	2 complete comparisons												
3 marks	1 comparison + 1 point about either side												
2 marks	1 complete comparison												
1 mark	1 point about either side												

Question			Answer	Marks	Guidance
6	(d)		<p>The identification of the information classification and a justification to include:</p> <ul style="list-style-type: none"> Public / non-sensitive / business (1st) The email address is readily available (1) and can be easily / quickly (1) found from a range of sources / example e.g. Web search (1) The company will need to show the email address (1) so customers can contact them (1) for any questions (1) The email address will not cause harm (1) Any other valid suggestion 	4	<p>1st mark for correct identification of classification 2nd / 3rd / 4th marks for justification</p> <p>Allow mix & match across mark points for justification,</p> <p>Read whole justification & mark to candidates advantage</p>
7	(a)		<p>An explanation of why the registration number needs to be valid to include:</p> <ul style="list-style-type: none"> If the registration number is entered wrongly (1) the incorrect vehicle (1) may be insured (1) The incorrect registration number (1) will be searched for on the DVLA database (1) and will return details of the wrong vehicle (1) To complete the insurance quote (1) all details (1) need to be valid including the registration number (1) Any other valid suggestion 	3	<p>Up to three marks for a complete explanation</p> <p>The focus of the Q is on the importance of the registration number being valid and NOT a definition of valid / validity</p>
7	(b)		<ul style="list-style-type: none"> External (1) Primary (1) 	1	

Question			Answer	Marks	Guidance
7	(c)		<p>An explanation of Big Data including an example, to include:</p> <ul style="list-style-type: none"> • Data that is either too large (1) or too complex (1) for traditional data analysis techniques to be used (1). • Example (1) e.g Make / Model / colour / fuel type / MOT date / medical records • Any other valid suggestion. 	4	<p>Up to three marks for a complete explanation</p> <p>1 mark for an example</p> <p>Max 3 marks if no example in the context of the Section B</p>
7	(d)		<ul style="list-style-type: none"> • Secondary (1) 	1	CAO
7	(e)		<ul style="list-style-type: none"> • Manipulating / Processing (1) 	1	CAO
8	(a)		<p>An explanation of the confidential principle of information security, and example, to include:</p> <ul style="list-style-type: none"> • Information can <u>only</u> be accessed (1) by authorised people (1) • Is a legal requirement under GDPR / DPA (1) • Requires data to be kept safe (1) and take measures to ensure this / example i.e user names / passwords (1) • Example (1) e.g. customers name / address / DoB / Phone number / email address / medical records • Any other valid suggestion. 	4	<p>Up to three marks for a complete explanation</p> <p>1 mark for an example</p> <p>Max 3 marks if no appropriate example</p>
8	(b)		<ul style="list-style-type: none"> • Computer Misuse Act / CMA (1) • Data Protection Act / DPA (1) • GDPR (1) 	1	The date should not be considered
8	(c)		<ul style="list-style-type: none"> • Data Sharing (code) (1) 	1	CAO

Question		Answer	Marks	Guidance
8	(d)*	<p>A discussion of the use of data analysis tools to analyse & manage the collected data to include:</p> <ul style="list-style-type: none"> • Data tables e.g. <ul style="list-style-type: none"> ○ Stored quotes can be stored in data tables to facilitate search / sort ○ Queries can be run on the data tables • Visualisation of data e.g. <ul style="list-style-type: none"> ○ Graphs / charts can be created to show the results of analysis ○ Data can be visualised easier on a graph / chart than looking at rows of figures • Trend and pattern identification e.g. <ul style="list-style-type: none"> ○ Searches / sorts to show the age range of customers ○ Range of vehicles that quotes are for ○ Geographical location of customers • Data cleaning e.g. <ul style="list-style-type: none"> ○ Removal of customers who have not dealt with company for a specified time scale ○ Removal of duplicate quotes 	10	<p>Mark band 3 (7 - 10 marks) At the top of the level a thorough discussion which shows detailed understanding:</p> <ul style="list-style-type: none"> • Explained more than one data analysis tool that can be used to analyse & manage the collected data. • Included relevant examples related to the insurance company which are used to support discussion • Ideas will be expressed clearly and fluently. • <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i> <p>Mark band 2 (4 – 6 marks) At the top of the level an adequate discussion which shows sound understanding:</p> <ul style="list-style-type: none"> • Described at least one data analysis tool that can be used to analyse & manage the collected data. • Included some examples which may not be relevant and may at times detract from fluency of narrative. • <i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i> <p>Mark band 1 (1 – 3 marks) At the top of the level a basic justification, which shows limited understanding:</p> <ul style="list-style-type: none"> • identification of generic points • limited use of subject terminology <p>0 marks Nothing worthy of credit.</p>

Question			Answer	Marks	Guidance
9	(a)		<ul style="list-style-type: none"> • (External) entities (1) • Processes (1) • (Data) stores (1) • (Data) flows / arrows (1) 	2	<i>Two from list for 1 mark each</i>
9	(b)		<ul style="list-style-type: none"> • At least one input or output for each external entity (1) • External entities are connected to a process (1) • External entities cannot connect to another external entity / data store (1) • Every data flow is labelled (1) • Every data flow connects to at least one process (1) • At least one <u>input</u> data flow for each process (1) • At least one <u>output</u> data flow for each process (1) 	2	<i>Two from list for 1 mark each</i> <i>The focus of the Q is on the connectivity rules, so answers relating to, for example, labelling of components should not be considered for marks.</i> <i>DNA data flows only in one direction as this is given in question.</i>

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