

**Cambridge Technicals
IT**

Unit 2: Global Information

Level 3 Cambridge Technical in IT
05838 – 05842/05877

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

Annotation	Meaning
	Tick – correct answer
	Cross – incorrect answer
	Plus – use for positives
	Minus – use for negatives
L1	Level 1
L2	Level 2
L3	Level 3
BOD	Benefit of doubt (This does count as a mark – so do not 'tick' as well)
^	Omission mark
V	Too vague
R	Repeat
 or 	Noted but no credit given

Question			Answer	Marks	Guidance
1	(a)		<ul style="list-style-type: none"> • Business (1) • Organisation (1) 	1	For 1 mark
1	(b)		<p>Possible explanation includes:</p> <ul style="list-style-type: none"> • The itinerary needs to be planned in advance (1) the planning includes countries /dates (1) • The itinerary is used by a shipping company / 3rd party / (1) • In country journeys needs to be advised (1) to local haulage companies (1) • If the itinerary is not planned (1) then the event tour will be disorganised / not happen (1) • Details are held (1) about future events (1) • Any other valid suggestion 	4	<p>Up to four marks for valid explanation.</p> <p>Mix and match approach across bullet points is possible.</p> <p>Read whole answer and mark to candidate's advantage.</p> <p>Not participants</p>
2	(a)		<p>Possible www technology and description include:</p> <ul style="list-style-type: none"> • Extranet (1st) • A website (1) provides restricted access/private (1) to resources for authorised user(s) (1) from outside PhWSSE (1) • It is an intranet (1) accessed via Internet (1) • Any other valid suggestion 	4	<p>1st Mark – Identification of www technology.</p> <p>2nd / 3rd / 4th Marks – description of technology</p>
2	(b)		<p>Characteristic identified include:</p> <ul style="list-style-type: none"> • Private (1) • Shared access (1) • Secure (1) 	1	<p>These are the only acceptable answers.</p> <p>Allow examples related to privacy – e.g. needs log-in detail or a password.</p>
3	(a)	(i)	<ul style="list-style-type: none"> • Text (1) • String (1) 	1	<p>These are the only acceptable answers</p> <p>Alphanumeric can be accepted as a Bod mark</p>

Question			Answer	Marks	Guidance
3	(a)	(ii)	<p>Possible explanations of why this information style has been used include:</p> <ul style="list-style-type: none"> • The tracking number includes numbers (1) and letters (1) • It includes spaces (1) • No calculations are performed on the tracking number (1) • If text / string was not used (1) then no numbers / spaces (1) would be able to be used in the tracking number (1) • Any other valid suggestion 	3	<i>If Q3a(i) is incorrect, marks can still be awarded Q3a(ii)</i>
3	(b)		<p>Possible explanation of why the tracking information needs to be reliable includes:</p> <ul style="list-style-type: none"> • The information needs to be trusted (1) and accurate (1) • PhWSSE need to have end-to-end visibility (1) of the location (1) of the equipment / cases (1) • If the information is not reliable (1) then the location (1) of the cases / equipment (1) will not be known (1) meaning that in country travel / airplanes may not happen (1) • Any other valid suggestion 	4	<p><i>Up to four marks for valid explanation.</i></p> <p>Mix and match approach across bullet points is possible.</p> <p>Read whole answer and mark to candidate's advantage.</p>
3	(c)		<p>Identification of one other characteristic with an explanation of why it is important includes:</p> <ul style="list-style-type: none"> • Valid / Validity (1st) • The tracking number is on time / up-to-date (1) so the location of the cases / equipment is known at all times / demonstrates end-to-end visibility (1) • Any other valid suggestion 	3	<p><i>1st Mark – Identification of characteristic.</i></p> <p><i>2nd / 3rd Marks – Explanation of importance</i></p> <p><i>Timely/Accuracy/Up-to-date/Availability can be awarded a Bod mark.</i></p>

Question	Answer	Marks	Guidance
4	<p>Indicative content</p> <p>Staff access rights to information Only those staff who need access are authorised Limited number of staff have the tour log-in details</p> <p>Responsibilities of staff for security of information Staff who have the tour log-in details must not give the details to anyone else – either staff or someone else. Log-in details must not be written down Devices used to access the details must not be left lying around The correct log out process must take place</p> <p>Staff training Staff who are authorised to access the details should be trained in the procedures Staff should be trained about basic cyber-security routines and procedures Training provided as to how to handle the tracking details and who these should be communicated to.</p>	10	<p>Level 3 [7-10 marks] The learner has explained how policies could be used to maintain the security of the tracking information. Examples provided are relevant</p> <p>Subject specific terminology and knowledge will be clearly used to support and inform the explanations.</p> <p><i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (4 – 6 marks) The learner has described how policies could be used to maintain the security of the tracking information. Examples provided may not be relevant.</p> <p>At the bottom of the mark band, the learner may describe generic aspects of policies in maintaining security.</p> <p><i>There is a line of reasoning presented with some structure. The information presented is for the most part relevant and supported by some evidence.</i></p> <p>Level 1 (1 – 3 marks) The learner has identified points relating to the use of policies in maintaining security of the tracking information.</p> <p><i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks = Nothing worthy of credit.</p>

Question		Answer	Marks	Guidance
5	(a)	<p>The purpose of an RSS feed to include:</p> <ul style="list-style-type: none"> To keep viewers up-to-date (1) about the results and points awarded for each sport (1) To provide information that is relevant (1) for a short time period. (1) To be able to quickly access information (1) without having to open separate pages (1) Any other valid suggestion 	2	<i>Up to two marks</i>
5	(b)	<p>Possible advantage to the schools of using RSS feeds include:</p> <ul style="list-style-type: none"> Those staff / students who are not at the event (1) can have instant access to results (1) Schools can keep a total of the number of points (1) they have scored (1) If spectators are too far away from the official scoreboard (1) results can be seen on computer devices connected to the internet (1) Schools do not have to constantly update / refresh the feeds (1) so the RSS feed shows the most up-to-date details (1) Any other valid suggestion 	2	<i>Up to two marks for valid advantage to the schools.</i>
5	(c)	<p>Possible disadvantage to PhWSSE of using RSS feeds include:</p> <ul style="list-style-type: none"> A connection is needed (1) to upload the results (1) Time consuming (1) to update the RSS feed (1) If an incorrect update is made (1) then this will be published on the RSS feed (1) One member of staff (1) will need to be designated to upload the RSS feeds (1) Staff may need to be trained (1) to upload the results (1) Some browsers do not support RSS feeds (1) so limiting accessibility to some schools / events / countries (1) Any other valid suggestion 	2	<i>Up to two marks for valid disadvantage to PhWSSE.</i>

Question		Answer	Marks	Guidance
5	(d)	<p>Identification of the type of source with justification include:</p> <ul style="list-style-type: none">• Internal / Primary (1st)• PhWSSE already have / collect / collate (1) the results of each sports competition / event on the tour (1)• The results are held by PhWSSE (1) and are not being provided by an external business/ organisation (1)• Any other valid suggestion	3	<p><i>1st Mark – Identification of type of source.</i> <i>2nd / 3rd Marks – justification of type of source</i></p>

Section B				
Question		Answer	Marks	Guidance
6	(a)	<p>An explanation, including an example, of the term big data 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 e.g. UK wide crime statistics • Any other valid suggestion 	4	<p><i>Up to 3 marks each for an explanation MAX 2 marks for an example</i></p> <p>To be awarded all allocated marks, an example must be included.</p> <p>The example provided must relate to the scenario of crime / crime prevention</p>
6	(b)	<p>An explanation, including an example, of the term sensitive include:</p> <ul style="list-style-type: none"> • Information that should not be generally available (1) • This information could cause harm if released (1) • Information that is protected against unwarranted disclosure (1) • Access should be safeguarded. (1) • The information can be business or personal (1) • Example (1) e.g medical conditions / disability of victims of crime 	3	<p><i>Up to 2 marks each for an explanation 1 mark for an example</i></p> <p>To be awarded all allocated marks, an example must be included.</p>

Question		Answer	Marks	Guidance
6	(c)*	<p>Indicative content:</p> <p>Biometric Data.</p> <ul style="list-style-type: none"> • Biometric data must be deleted of suspects who are not convicted of any offence. • The length of time is reduced for which biometric data can be retained • Only the data of those convicted of the most serious offences is subject to ‘indefinite’ retention. • Schools and colleges to obtain consent of one parent of a child under 18 for acquiring and processing the child's biometric information. • The child has the right to stop the processing of their biometric information regardless of any parental consent. • The processing of biometric information must be discontinued if any parent of the child objects. • Any other valid suggestion <p>Safeguarding the vulnerable and criminal records</p> <ul style="list-style-type: none"> • Criminal records disclosure is required for anyone working or involved in activities with vulnerable groups. • Any other valid suggestion <p>Data protection and freedom of information.</p> <ul style="list-style-type: none"> • Certain data should be provided in an electronic form suitable for re-use. • This includes widening the rules on applying for and receiving datasets from public authorities for re-use. • Any other valid suggestion <p>Other areas of the PoF Act which may be covered include:</p> <ul style="list-style-type: none"> • Surveillance. • Counter-terrorism • Introduction of offences of trafficking people for sexual exploitation and labour, and stalking 	10	<p>Level 3 [7-10 marks] The learner has explained how police forces need to consider the PoF Act. Examples provided are relevant Subject specific terminology and knowledge will be clearly used to support and inform the explanations. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 2 (4 – 6 marks) The learner has described how police forces need to consider the PoF Act. Examples provided may not be relevant. At the bottom of the mark band, the learner may describe generic aspects of the PoF Act. <i>There is a line of reasoning presented with some structure. The information presented is for the most part relevant and supported by some evidence.</i></p> <p>Level 1 (1 – 3 marks) The learner has identified points relating to how police forces need to consider the PoF Act. <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks = Nothing worthy of credit.</p>

Question			Answer	Marks	Guidance
7	(a)		<p>Possible identification and description of advantages of using a spreadsheet to analyse data to include:</p> <ul style="list-style-type: none"> • Different worksheets can be used (1st) for the different types of statistics (1) example e.g different areas / types of crime (1) • Use of functions/formula (1st) can reduce errors (1) when collating large amount of statistics (1) • Automatic recalculation (1st) to ensure that if new statistics are included (1) the analysis will be the same (1) • Cells can be protected (1st) so structure of spreadsheet can be set up in advance (1) and will produce the same analysis each time (1) • Use of calculations (1st) for accurate (1) analysis (1) • Any other valid suggestion 	6	<p><i>In each of 2 cases: Up to three marks for valid explanation.</i></p> <p><i>1st Mark – Identification of advantage. 2nd / 3rd Marks – description of advantage</i></p>
7	(b)	(i)	<p>Possible justification of the use of visualisation analysis tool include:</p> <ul style="list-style-type: none"> • Visualisation includes the use of charts / graphs (1) which can show the analysed data in a clear and easily understandable way (1) • Different graphs / charts (1) can be used to show data in an appropriate way (1) • Data presented visually (1) can clearly show trends and patterns (1) • Correlations (1) between different data can be seen (1) • Any other valid suggestion 	4	<p><i>Up to four marks for valid justification</i></p> <p>Read the whole answer and mark to the candidates advantage.</p>
7	(b)	(ii)	<p>Identification of two types of visualisation tools include:</p> <ul style="list-style-type: none"> • Line (1) • Pie (1) • Column (1) • Scatter (1) • Area (1) 	2	<p><i>1 mark for each of 2 types of charts / graphs identified</i></p> <p><i>DNA bar as this is given in the Q.</i></p>

Question		Answer	Marks	Guidance
8	(a)	<p>Possible Identification and description of one other information security risk include:</p> <p>Unauthorised / unintended access to data / hacking (1st)</p> <ul style="list-style-type: none"> Data is seen or used by those (1) who should not see / use it (1) Any other valid suggestion <p>Accidental loss of data (1st)</p> <ul style="list-style-type: none"> The data is lost <u>unintentionally</u> (1) such as someone deleting the file containing the data / the file corrupting with no backup (1) Any other valid suggestion <p>Intentional destruction of data (1st)</p> <ul style="list-style-type: none"> The data is destroyed by a deliberate act (1) usually as the result of a virus / hacking attack (1) Any other valid suggestion 	3	<p>1st Mark – Identification of security risk. 2nd and 3rd Marks – Description of security risk.</p> <p>The risk must be correct to enable marks for the description to be awarded.</p> <p>Do NOT accept 'intentional / unintentional tampering with the data' as this is given in the question</p>
8	(b)	<p>Possible explanation what is meant by the information security principle of availability to include:</p> <ul style="list-style-type: none"> Information is <u>always</u> available to (1) and usable (1) by the individuals / groups / processes that need it. (1) Information is accessible (1) when needed (1) Any other valid suggestion 	3	<p>Up to three marks for valid explanation.</p> <p>Read the whole answer and mark to the candidates' advantage.</p>

Question		Answer	Marks	Guidance
9	(a)	<p>Possible explanation of how the information style of audio can be used during the presentation of the statistics on the websites to include:</p> <ul style="list-style-type: none"> • Used in a video / Presentation Software (1) to describe the results of the analysis (1) • Person / presenter speaking (1) to provide further details about the analysis (1) • In separate files (1) to provide more in-depth analysis of the statistics (1) • Accessibility of information(1) for visually impaired(1) • Any other valid suggestion 	3	<p><i>Up to three marks for valid explanation.</i></p> <p>Read the whole answer and mark to the candidates' advantage.</p> <p>Can mix & match across mark points</p>
9	(b)	<p>Identification of two features include:</p> <ul style="list-style-type: none"> • Screen reader (1) • Alt Tags (1) • Text zoom / magnifier (1) • Subtitles (1) • Any other valid suggestion 	2	<p><i>1 mark for each of 2 features identified</i></p>

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