OCR
Oxford Cambridge and RSA

Cambridge Technicals
IT

Unit 2: Global Information

Level 3 Cambridge Technical in IT

Mark Scheme for June 2018

Oxford Cambridge and RSA Examinations

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
SEEN or	Noted but no credit given

Question			Answer	Marks	Guidance
1	**a**		• Solid state (media) / SSD (1) • Flash drive / memory (1)	1	For 1 mark
1	**b**		**Possible advantages to Progress LakeSailing include:** • Memory sticks can be encrypted (1) meaning the data can be held securely / conform with DPA (1) • Passwords can be used (1) to increase the security of the personal details of the competitors (1) • Portable (1) so can be kept by timing office staff at all times / can be used in any device (1) • If dropped in water / Lake Windermere (1) data can still be retrieved (1) • No moving parts (1) so more robust / less likely to be damaged / corrupted (1) • Any other valid suggestion **Possible disadvantages to Progress LakeSailing include:** • If the connector becomes damaged (1) the database may become inaccessible / cannot access database (1) • Easily lost (1) someone else could access the information / e.g. they can fall out of a pocket or left in a machine (1) • If ejected incorrectly (1) the contents could become corrupted (1) • Any other valid suggestion	4	*Up to two marks for each of two descriptions.* 1 advantage described, max 2 marks 1 disadvantage described, max 2 marks Allow fast to back up IF compared with another appropriate storage media Do NOT accept lack of capacity or high capacity

Question			Answer	Marks	Guidance
1	c		**Possible explanations of how password use would increase the security of the entry database include:** • A password restricts access to the database (1) without a correct password (1) the contents of the database cannot be accessed (1) • Can be used with a user ID (1) to authenticate the user (1) so access to the database can be limited to a specific group of users (1) • Can be used to encrypt the database (1) so will be harder to access the data (1) if unauthorised access occurs (1) • Any other valid suggestion	3	*Up to three marks for explanation* Accept answers relating to the reason why NOT having a password would increase security.
1	d		**Possible physical protection methods which could be used to secure the laptop used in the timing office during the regatta include:** • Biometrics (1st) finger print / eye scanners (1) confirm the identity of the user (1) • Locking laptop away (1st) if no-one in office (1) so it is out of view (1) • Using a safe (1st) as only those authorised (1) will have the key / combination (1) • Not leaving office unattended (1st) a race official must be present (1) to reduce chance of laptop being stolen (1) • Keeping laptop above flood / water line (1st) the office is on the shores of a Lake (1) so water does not damage laptop / so data on laptop is secure from water damage (1) • Locks (1st) only people with the key / number (1) can access the laptop / office (1) • Any other valid suggestion	3	*1st Mark – Identification of appropriate physical protection method.* *2nd and 3rd Marks – Description of method.* The method must be correct to enable marks for the description to be awarded. The focus of this question is on **physical** methods so do NOT mark any logical methods. The method must be appropriate to the regatta, for example use of security guards would not be appropriate Locks can be taken to mean padlocks / door locks / physical device locks / keypads

Question	Answer	Marks	Guidance
2	**Possible advantages of using a spreadsheet for recording the results of the regatta include:** • Different worksheets can be used (1) for the times / results of each class (1) • Validation can be set (1) to ensure data entered is in the correct format (1) • Filters / Queries / sorts can be run (1) example of query e.g. to show the boats in each class (1) • Use of calculations / functions/formula (1) can reduce errors when calculating the winners of a class / for fast and/or accurate production of results (1) • Automatic recalculation (1) to ensure that running points totals are updated (1) • Cells can be protected (1) so structure of spreadsheet can be set up in advance (1) • On paper mistakes can be difficult to correct (1) a spreadsheet can be used to correct mistakes efficiently (1) • Any other valid suggestion **Possible disadvantages of using a spreadsheet for recording the results of the regatta include:** • If incorrect figures / times are input (1) then the results will be incorrect (1) • If the functions / formulae are set up incorrectly (1) then calculations / results will be incorrect (1) • If not backed up regularly (1) then data may be lost (1) • Manual input (1) so errors could be introduced (1) • Any other valid suggestion	6	*Up to two marks for each of three descriptions* 2 advantages described, max 2 marks each 1 disadvantage described, max 2 marks

Question			Answer	Marks	Guidance
3	a		**Types of internet connection include:** • Mobile data network (1) • 3G / 4G (1) • Wireless hotspot (1)	1	For 1 mark
3	b		**Reasons why the location of the timing office could affect the speed of internet access include:** • The location of Lake Windermere (1) could mean that internet access is varied / intermittent (1) • Physical factors / hills / woods (1) can decrease the speed of the internet connection (1) • Weather (1) can cause intermittent service (1) • Mobile network speed may be degraded (1) due to distance between masts (and geographical issues) (1) • Connection / upload speeds may be slow (1) due to physical location of the timing office (1) • Increased number of devices connecting (to infrastructure / masts) (1) will slow down access for all devices (1) • Any other valid suggestion	6	*Up to two marks for each of three descriptions* To award marks for speed this must be quantified
3	c		• Range (distance) (1) • Strength (1) • Latency (1) • Bandwidth (1) • Contention (1) • Storage capacity (1) • Any other valid suggestion	1	*For one mark*

Question	Answer	Marks	Guidance
4*	Indicative content • An Act passed to ensure that people who create a photo/image/music/text can be paid if it is used. • To provide protection to the creators of work if it is stolen or used without their permission • The creator of an image can charge PLS for their image to be used or ask PLS to acknowledge them as the creator of the photo on the website. • Allows the creator of an image to control the rights to use the image so if PLS used a photo without permission, the creator of the photo can ask for it to be removed or a fee to be paid for continued use. • To enable the creator of an image to give permission to use it. If PLS want to use a photograph taken by someone else they must ask for permission to use it • The Act enables the ownership of a work to be established. • The Act does not stop the image from being used / taken but gives the creator of an image the right to prosecute people who use their works without permission • Any other valid suggestion	10	**Mark band 3 (7 - 10 marks)** The learner has shown a detailed level of understanding by discussing the implications of the CD&P Act. The learner is able to provide a clear discussion of more than one clear implication. Examples used to support discussion may be superficially related to scenario. Subject specific terminology and knowledge will be clearly used to support and inform the discussion. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Mark band 2 (4 – 6 marks)** The learner has shown a good level of understanding by explaining the implications of the CD&P Act. Explanations may concentrate on one implication, with, at the lower end of the mark band, limited depth. Some examples / scenario may be used to support discussion but may not be relevant and may at times detract from fluency of narrative. *There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.* **Mark band 1 (1 – 3 marks)** The learner has identified points relevant to the use of CD&P Act, description and ideas will be poorly expressed. Subject specific terminology may be limited or missing. 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. **0 marks** Nothing worthy of credit.

Question			Answer	Marks	Guidance
5	**a**		**Actions that could be taken during the regatta to conform to this condition include:** • Recycling (1) including paper / ink cartridges / using for different uses (1) • Using environmentally friendly ink (1) does not contain solvents / easier to fully recycle (1) • Switching off lights / computer equipment (1) when no one is in room / not being used (1) • Printing (1) only printing what is actually vital (1) • Setting automatic timers (1) to switch off devices / put into sleep (standby) mode after a specified time of non-use (1) • Storing / accessing data online (1) rather than printing documents (1) • Use of solar/ wind power (1) to charge portable battery charging packs for devices (1) • Turning monitor brightness down (1) to conserve energy use (1) • Any other valid suggestion	2	*Up to two marks for description.*

Question			Answer	Marks	Guidance
5	**b**		**Benefits to the organisers of the regatta of using Green IT include:** • Energy costs / use (1) will be reduced (1) as power is not being wasted / lights not being left on (1) • Consumables (1) will be reduced in use (1) leading to less cost for PLS/ less going to landfill (1) • Image of PLS (1) will be enhanced (1) as operating in the LDNP / consideration of environment (1) • Reduction of carbon footprint (1) reducing impact on Lake Windermere (1) reducing global warming / emissions (1) • Protects environment (1) as in National Park (1) meaning more likely to be able to hold regatta in future years (1) • Increased security (1) as data can be stored on the cloud (1) reducing chances of paper being lost (1) • Any other valid suggestion	6	*Up to three marks for each of two explanations.*

Section B					
Question			**Answer**	**Marks**	**Guidance**
6			<table><tr><td>**Data Flow links**</td><td>**Data Store**</td><td>**External Entity**</td><td>**Process**</td></tr><tr><td>**Data Store**</td><td>X</td><td>X</td><td>✓</td></tr><tr><td>**External Entity**</td><td>X</td><td>X</td><td>✓</td></tr><tr><td>**Process**</td><td>✓</td><td>✓</td><td>✓</td></tr></table>	3	*One mark to be awarded for each correct column.* If no crosses then ticks only can be marked.
7	**a**	**i**	**Possible responses include:** • Information which can be seen by anyone (1) and is in the public domain (1) does not include sensitive information (1) • Example provided (1) e.g. shop address / Census records / Electoral Roll • Any other valid suggestion	3	*Up to three marks for explanation.* **The answer given could include an example.**
7	**a**	**ii**	**Possible stakeholders include:** • Office of National Statistics / ONS (1) • Credit Reference Agencies (allow examples e.g. Equifax) (1) • N.H.S (1) • The general public (1) • Government (1) • Security services (1) • Any other valid suggestion	2	*For two marks:*

Question			Answer	Marks	Guidance
7	b		**Possible information characteristics include:** • Validity (1st) the information must be appropriate / valid for the purpose for which it is being used / held (1) invalid information detracts from the purpose of the information (1) • Bias (1st) information that is one-sided (1) it may be correct but ignores alternative views (1) • Reliability (1st) information must not be wrong, out of date or inaccurate (1) reliable information has value / unreliable information is less valuable (1) • Accuracy (1st) information must be accurate / correct / (1) or it is worthless (1) • Age / up-to date (1st) information can change over time (1) information from the past may no longer be useful / relevant (1) • Relevance (1st) if information isn't relevant (1) then it is useless / worthless (1) • Completeness (1st) all information must be present (1) if any is missing then the information cannot be used (1) • Any other valid suggestion	6	*In each of two cases:* *1st Mark – Identification of appropriate characteristic of information.* *2nd and 3rd Marks – Explanation of why characteristic is important.* The characteristic must be correct to enable marks for the description to be awarded Do NOT award marks for comparability as this is given in the question. .

Question			Answer	Marks	Guidance
7	**c**		**Possible ways in which the text style used in the mailshot should be considered include:** • The text style must be easy to read / appealing to customers (1) • Have to fit in with company house style / may be defined in house style (1) • Text style must be appropriate to the contents of the mailshot (1) • Any other valid suggestion	2	*Up to two marks for description.*
7	**d**		**Possible ways that a database could be used to produce the mailshot to customers include:** • Criteria for receiving mailshot is determined (1) • Example e.g. customers who have ordered children's toys in last 6 months (1) • Query is used in database (1) • To select relevant / appropriate customers (1) • Mail merge set up / run (1) • Any other valid suggestion	4	*Up to four marks for an explanation*
7	**e**		**Possible information styles for the mailshot include:** • Braille (1) • Audio / speaking / voice advert (1) • Any other valid suggestion	1	*For one mark*

Question			Answer	Marks	Guidance
8*	**a**		Indicative content **How a MIS could be used by the Human Resources (HR) department in a multi-national organisation include:** • As the organisation is multi-national the MIS will enable all HR departments to share the information. • Employees can move around the organisation between countries, the MIS will enable their records to be accessed where ever they are. • Emergency details can be gathered at any time of day or night in the event of e.g. an accident • Back-ups of information can be taken centrally and kept secure • Employees can access their records for e.g. holiday requests where ever they are based. • Holiday requests can be authorised centrally to ensure adequate staff cover is in place • Job promotions can be handled centrally with MIS being searched for required skills with the existing work force. • Trends & patterns can be identified e.g. sickness rates at any given location • Can integrate with Payroll function to ensure pay is correct • Can analyse HR functions e.g. staffing, succession planning, recruitment & tracking, job role benefits • Any other valid suggestion	10	**Mark Band 3 (7-10 marks)** The learner has explained how a MIS could be used by a HR department and a multi-national organisation. Subject specific terminology and knowledge will be clearly used to support and inform the explanations. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Mark Band 2 (4-6 marks)** The learner has described how a MIS could be used by a HR department / a multi-national organisation. At the bottom of the mark band, the learner may describe generic task(s) that a MIS could be used. *There is a line of reasoning presented with some structure. The information presented is for the most part relevant and supported by some evidence.* **Mark Band 1 (1-3 marks)** The learner has identified generic points in relation to the MIS. Subject specific terminology may be limited or missing. *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.* **0 marks =** Nothing worthy of credit.

Question			Answer	Marks	Guidance
8	**b**		**Possible security risks to the MIS include:** • Unauthorised access / hackers (1st) accessing sensitive / confidential information (1) with the intention of using data for example e.g. identity theft (1) • Accidental loss of data (1st) staff not saving updates (1) which can lead to incorrect data being held (1) • Intentional destruction of data / virus (1st) data being accessed (1) and deleted (1) • Intentional tampering with data (1st) data being accessed and manipulated (1) example e.g. for increased salary (1) • Any other valid suggestion	6	*In each of two cases:* *1st Mark – Identification of appropriate security risk.* *2nd and 3rd Marks – Description of security risk.* The risk must be correct to enable marks for the description to be awarded.

OCR (Oxford Cambridge and RSA Examinations)
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA

OCR Customer Contact Centre

Education and Learning
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance
programme your call may be recorded or monitored