

Mark Scheme for January 2012

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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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Question			Answer	Marks	Guidance
1	(a)	(i)	<p><i>One from:</i></p> <ul style="list-style-type: none"> displaying the transaction details/valid example eg total price (1) instructions/information to user/valid example eg Enter PIN (1) shows * * * * (1) 	1	Do not allow PIN (Personal Identification Number) as this is not displayed on screen
		(ii)	<p><i>One from:</i></p> <ul style="list-style-type: none"> the transaction amount (1) confirming the transaction (1) the PIN codes (1) confirming the PIN (1) adding gratuity (1) cancelling the transaction (1) 	1	
		(iii)	<ul style="list-style-type: none"> reading the data (in the card's magnetic stripe) (1) if the chip fails/does not work/is not being used/is not present (1) 	2	Must be about reading the data.
	(b)		<p><i>Two explanations from:</i></p> <ul style="list-style-type: none"> hold reader away from others/shield reader from others/use the shield(1) so keys pressed cannot be seen/to hide key presses (1) check for CCTVs (1) to ensure that key presses are not captured on video (1) no additional hardware attached (1) check that reader is genuine (1) do not let reader with card out of sight (1) so that card details cannot be copied/cloned (1) 	4	

Question		Answer	Marks	Guidance	
2			4	Allow valid and appropriate references to use for over coming physical disabilities	
		Device			Example of use
		Puff suck switch			control computer/control devices
		Barcode reader			reads data stored in/scan barcodes
		Braille keyboard			typing/input of characters
Touch screen	select objects by touching screen/displays results of process				

Question	Answer	Marks	Guidance
3	<p>This question to be marked as levels of response.</p> <p>Level 3 (7 – 8 marks) Candidates will discuss different aspects of the impact on both the bank and its customers, using relevant and appropriate examples. The discussion used will be balanced. The information will be relevant, clear, organised and presented in a structured and coherent format. Specialist terms will be used correctly and appropriately. There will be few, if any, errors in grammar, punctuation and spelling.</p> <p>Level 2 (4 – 6 marks) Candidates will discuss aspect(s) of the impact on both the bank and its customers. Examples used will be for the most part relevant. The discussion used may be one-sided with reference to bank/customers. For the most part the information will be relevant and presented in a structured and coherent format. Specialist terms will be used appropriately and for the most part correctly. There may be occasional errors in grammar, punctuation and spelling.</p> <p>Level 1 (0 – 3 marks) Candidates will address some aspect(s) of the impact on the bank or its customers. Examples, if used, may lack relevance. Answers may be in the form of a list. There will be little or no use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p>	8	

Question	Answer	Marks	Guidance
	<p>Answers may include:</p> <p>Bank:</p> <ul style="list-style-type: none"> • need fewer branches/staff so save money • can reach wider customer base • need to employ skilled technicians • no contact with customers • only reach customers with internet connection/ICT skills <p>Bank workers:</p> <ul style="list-style-type: none"> • change in working patterns • employment changes • loss of jobs • shorter hours so less pay • may not continue in chosen job <p>Customers:</p> <ul style="list-style-type: none"> • can bank any time of day • no need to visit branch • if (local) branch closes it makes no difference • can bank from anywhere with internet access • may be more ATMs available • no personal touch • still need branch/ATM for cash but may not be one • security issues 		

Question	Answer	Marks	Guidance
4	<p><i>Two from:</i></p> <ul style="list-style-type: none"> • save files (1) • close (all) applications (1) • logout/shutdown (1) 	2	
5	<p><i>Four from:</i></p> <ul style="list-style-type: none"> • illegal/criminal offence (1) to make/attempt to make unauthorised access (1) to stored data (1) • access computer material with the intention of using the material to commit other offences (1) • make unauthorised alterations (1) to computer data/to cause malfunction/damage other data (1) 	4	
6	<p><i>Three from:</i></p> <p>flat file:</p> <ul style="list-style-type: none"> • (stores data in) a single table (1) <p>relational:</p> <ul style="list-style-type: none"> • more than one/multiple tables (1) with links (between tables) (1) using key fields (1) <p>For full marks must mention more than one table</p>	3	

Question		Answer	Marks	Guidance
7	(a)	<p>Server</p> <ul style="list-style-type: none"> • Stores data/files/applications/software/settings (1) • for sharing/that can be shared/transferred (1) <p>Network hub max 2 from:</p> <ul style="list-style-type: none"> • allows communication/connection (1) • between network node/PC/device (1) • using cable(s) (1) 	4	Max 2 marks for each of server and hub.
	(b)	<p>Two from:</p> <ul style="list-style-type: none"> • does not require cabling/drilling holes (1) • can add more PCs/laptops easily (1) • can use while moving from room to room/anywhere in house (1) • easy to set up/install (1) • can connect other devices eg smart phones (1) 	2	
	(c)	<p>One from eg:</p> <ul style="list-style-type: none"> • Security (1) as personal details/data/files (1) may be intercepted (by others) (1) • Slow speed (1) data/files/emails/ web pages/downloads can take a long time to transfer (1) and (streaming) audio/video may not play/break up (1) • Poor/small range/coverage (1) restricts areas where signal can be received (1) signal will not pass through some building materials eg glass/walls/steel (1) • Interference to/by signal (1) from/to other devices/wireless networks/household appliances (1) • Unauthorised use of the wireless network (1) leading to unwanted bills/illegal use (1) • Some devices eg televisions/DVD players/games consoles/smart phones (1) may not connect using wireless/need additional (expensive) hardware to connect/may be complex to set up connection (1) 	2	Allow only one example and max 2 marks

Question		Answer	Marks	Guidance
8	(a)	<p><i>Three from:</i></p> <ul style="list-style-type: none"> • can be read at great(er) speed (than eg barcodes) (1) • can be read at a distance (up to 100m)/do not require direct line of sight to item (from operator) (1) • can be very small/hidden in items (1) • can be re-write devices (1) so data can be updated/alterd by “reading” device/machine (1) • can be used for (extra) security (1) 	3	
	(b)	<p><i>One description from eg</i></p> <ul style="list-style-type: none"> • animal identification (1) chip/tag is inserted into animal under skin (1) can be read by Vet (1) number looked up in database and owner/animal details found (1) • road toll payments (1) tag fitted in vehicle (1) read by sensor as vehicle passes (1) • payment made electronically (1) mobile phone top-ups/payments (1) tags in phones can be used to ID phone when making payments (1) • tracking item (eg library book) (1) placed in item (eg book spine/cover) (1) 	2	
9		<p><i>Three ways with a reason from: eg</i></p> <ul style="list-style-type: none"> • use of different font faces/families/font sizes (1) <ul style="list-style-type: none"> – to highlight different sections/text (1) • use a photograph/better image/drawing (1) <ul style="list-style-type: none"> – to make it more fit for purpose/image is poor quality/amateurish (1) • amend/add the content of invitation (1) <ul style="list-style-type: none"> – to make the invitation more personal (1) 	6	<p>This is an exemplar list only; there are a number of valid answers.</p> <p>There are a number of areas such as formatting, adding pictures, altering content – answers can be from any or all of these areas but allow the same reason if appropriate.</p>

Question	Answer	Marks	Guidance
10	<p><i>Max three for either verification or validation</i> Appropriate examples of why needed include: (Verification is needed because):</p> <ul style="list-style-type: none"> • details must be copied/transcribed accurately from data collection forms (1) • errors may still occur if the source is wrong/inaccurate (1) • one appropriate example of why needed (1) <p>(Validation is needed because):</p> <ul style="list-style-type: none"> • verification does not detect errors on the original paper documents (1) • data must be reasonable/conform to rules (1) • one appropriate example of why needed (1) 	4	<p>Appropriate examples of the need for verification include:</p> <ul style="list-style-type: none"> • students may end up in wrong/inappropriate classes/groups if details wrong • results certificates may be incorrectly issued • parents cannot be contacted (in emergencies) if details wrong <p>Appropriate examples of the need for validation include:</p> <ul style="list-style-type: none"> • (some) data should be within set range eg date of birth • (some) fields must be filled in eg name/address/telephone number • (some) data must be in correct eg format/type

Question	Answer	Marks	Guidance
11	<p>This question to be marked as levels of response.</p> <p>Levels of response</p> <p>Level 3 (7 – 8 marks) Candidates will discuss ways that ICT is used in monitoring both where people are and what people are doing, using relevant and appropriate examples. The discussion used will be balanced. The information will be relevant, clear, organised and presented in a structured and coherent format. Specialist terms will be used correctly and appropriately. There will be few, if any, errors in grammar, punctuation and spelling.</p> <p>Level 2 (4 – 6 marks) Candidates will discuss way(s) that ICT is used in monitoring both where people are and what people are doing. Examples used will be for the most part relevant. The discussion used may be one-sided. For the most part the information will be relevant and presented in a structured and coherent format. Specialist terms will be used appropriately and for the most part correctly. There may be occasional errors in grammar, punctuation and spelling.</p> <p>Level 1 (0 – 3 marks) Candidates will only address some way(s) that ICT is used in monitoring where people are or what people are doing. Examples, if used, may lack relevance. Answers may be in the form of a list. There will be little or no use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.</p>	8	

Question			Answer	Marks	Guidance
			<p>Answers may include reference to:</p> <p>Uses of ICT eg GPS CCTV Electronic tags</p> <p>in eg Security eg anti-terrorism Justice eg tracking individuals Privacy eg surveillance of public areas Health eg alerting paramedics in emergencies</p>		
			Total	60	

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