OCR
Oxford Cambridge and RSA

GCSE

ICT

Unit **B063/01/02:** ICT in Context

General Certificate of Secondary Education

Mark Scheme for June 2014

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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.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

Annotations

Annotation	Meaning
BP	**Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.**
SEEN	SEEN – this must be present on all pages, if there are no other marks on the paper. SEEN must be present on all banded response questions if zero marks awarded.
L1, L2, L3	L1, L2, L3 should be used on all banded response questions. There should be no other marks on banded response questions where marks have been awarded..
✓	Use to indicate a correct point/expansion for which a mark is awarded. **DO NOT** use on banded response questions.
X	Use to indicate the point/expansion/answer is not worthy of credit. **DO NOT** use on banded response questions.
TV	Use when the answer is too vague to be awarded a mark.
BOD	Use when giving benefit of the doubt, eg if the language is poor but the answer is essentially correct.
NBOD	Use when benefit of doubt not given.
Highlight tool	Not compulsory but can be used to highlight reasons for a decision to a 3rd party.
REP	Used when 2nd part of an answer is a repetition of the first and no marks are awarded.
NAQ	Used when the response provided does not answer the question asked.

Question	Answer	Mark	Guidance
1	<table><tr><th>Description</th><th>Item</th></tr><tr><td>Software used by doctors to make a diagnosis</td><td>C</td></tr><tr><td>A copy of a file that can be used if the original is lost or damaged</td><td>A</td></tr><tr><td>A device that reads biometric information</td><td>D</td></tr><tr><td>A device used to convert printed material into electronic format</td><td>B</td></tr><tr><td>A device used to produce paper versions of patient records</td><td>E</td></tr><tr><td>A hand-held device that has a touch screen</td><td>G</td></tr><tr><td>The database used to store patient records</td><td>F</td></tr></table>	**[6]**	
2	Two marks for each valid explanation, MAX 6 eg. - Lock server away(1) to prevent physical access(1) - Different access rights (1) to different staff members so they can only see the data they need to (1) - User-name/password(1) so that only people with correct details can access data (1) - Access card/biometric(1) to authenticate individual user(1) - Use a Firewall (1) so data can't be accessed by people outside the company (1) - Encrypt a document/data (1) so content cannot be read (by unauthorised users)(1)	**[6]**	Do not accept "so that <u>nobody</u> can read it". To prevent unauthorised access is in the stem of the question.

	Question		Answer	Mark	Guidance
3	a		Three from eg. - Telephone (1) - Television (1) - Internet (1) - Radio (1) - Gaming (1) - Email (1)	**[3]**	Accept answers relating to physical features as well as services. Do not accept speakers.
	b		Two marks for a valid explanation Answers may discuss communication or entertainment. eg. - Keep entertained/Prevent boredom (1) which may speed up recovery/could be in hospital for long time(1) - Communicate with family/friends(1) so not out of touch(1)	**[2]**	
4			One mark for item (max two) one mark for reason (max two) eg. - Adjust font size (1) so people with visual impairment can read the text - Use Alt tags (1) so screen reader software can read the page (1) - Use contrasting colours (1) to make parts of page stand out (1)	**[4]**	

Question			Answer	Mark	Guidance
5	**a**		Two marks for a valid description eg. • Protect the network (1) so intruders can't get in (1) • Monitor unauthorised access(1) to protect the network(1) • Analyse incoming traffic (1) to decide if it should be allowed through (1)	**[2]**	
	b		Two from: eg. • Router(1) • ADSL Line(1) • Leased Line(1) • Modem(1) • Wireless <u>access point</u>(1) • Switch/Hub(1) • (Network)cable(1) • CSU/DSU(1)	**[2]**	Do not accept computer/work station/server. This question deals with components needed to create a network NOT devices that will access the network.
6	**a**		Two marks for a valid definition • A way of working remotely(1) as though you are in the room(1) • Controlling equipment at one location(1) while based in another(1)	**[2]**	Do not accept implied definition from an example.
	b		<table><tr><td>L3</td><td>Two descriptions in context at top of mark band</td><td>5 - 6 marks</td></tr><tr><td>L2</td><td>One description in context</td><td>3 - 4 marks</td></tr><tr><td>L1</td><td>Identification/list of uses</td><td>1 – 2 marks</td></tr></table>Examples may include; • Experts in one location can operate on patients in another location without having to transport the patient. • Paramedics in an ambulance can send data about patients (to doctors) to allow accurate/quick diagnosis.	**[6]**	

Question	Answer	Mark	Guidance
7	Points may cover some of the following:- **Benefits** Ability to update patient records anywhere. Can work without wires. Use of hand held devices. **Drawbacks** Security. Administration. Interference with medical equipment. Lack of signal.	**[8]**	**L3 7-8 Marks** Candidates will show a clear understanding of the question and will include an explanation of the benefits and drawbacks of using wireless networks/hand-held devices for the staff/hospital. **At least one relevant example will be given.** The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly. **L2 4 – 6 Marks** Candidates will show an understanding of the question and include an explanation **or** detailed description of the benefit(s) and drawback(s) of using a wireless network/hand-held devices in the hospital context. An example will be given. The answer may be one sided. The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct. **L1 1 – 3 Marks** Candidates may demonstrate a limited understanding of the question. Information may be a list of points, covering some of the benefit(s) and drawback(s) of using a wireless network/hand-held devices. Examples may not be given. Information may be poorly expressed and there may be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive. **0 marks**– no relevant content

Question			Answer	Mark	Guidance
8	a		Three marks for correct identification eg. - Heart rate/ECG(1) - Pulse(1) - Blood Pressure(1) - Weight(1) - Temperature(1) - Blood sugar levels(1)	**[3]**	
	b		Two marks for correct item eg. - Sound (1) - Print out (1) - On Screen (1)	**[2]**	Allow examples Allow device or medium.
	c		Two marks per advantage (max 4) Two marks per disadvantage. eg. **Advantages** - Medical staff don't need to visit patient (1) so reduces work load (1) - Medical file is updated continually (1) so doctors always have up-to-date information (1) - Staff can be alerted if patients readings go outside threshold(1) so patient is can feel safer(1) **Disadvantage** - Data could be sent to wrong file (1) which could put patient in danger (1) - If system develops a fault (1) medical staff may not be alerted (1)	**[6]**	The question refers to **using** a patient monitoring system not the initial purchase.

Question			Answer	Mark	Guidance
9			Points may cover some of the following:- **Benefits** No need for expert in all hospitals. Speed up diagnosis of common diseases. Free up expert time for more complex cases. **Limitations** May provide incorrect results for similar issues. Reliant on the system having information about the complaint. Reluctance of some patients to rely on the technology.	**[8]**	**L3 7-8 Marks** Candidates will show a clear understanding of the question and will include an explanation of the benefits and limitations of using an expert system in the diagnosis and treatment of patients. **Answers must be in context.** The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly. **L2 4 – 6 Marks** Candidates will show an understanding of the question and include an explanation **or** detailed description of the benefit(s) and limitation(s) of an expert system in the diagnosis and treatment of patients in the hospital context. The answer may be one sided. The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct. **L1 0 – 3 Marks** Candidates may demonstrate a limited understanding of the question. Information may be a list of points, covering some of the benefit(s) and limitations(s) of an expert system in the diagnosis and treatment of patients. Information may be poorly expressed and there may be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive. **0 marks**– no relevant content
			Paper Total	**60**	

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