Candidate Style Answers

OCR GCSE ICT J461 / J061

Unit B063 ICT in Context: Examined Assessment

High-Grade Candidate Response

This support material booklet is designed to accompany the OCR GCSE ICT specifications for teaching from September 2010.

Introduction

OCR has produced these candidate style answers to support teachers in interpreting the assessment criteria for the new GCSE specifications and to bridge the gap between new specification release and availability of exemplar candidate work.

This content has been produced by subject experts, with the input of Chairs of Examiners, to illustrate how the sample assessment questions might be answered and provide some commentary on what factors contribute to an overall grading. The candidate style answers are not written in a way that is intended to replicate student work but to demonstrate what a "good" or "excellent" response might include, supported by examiner commentary and conclusions.

As these responses have not been through full moderation and do not replicate student work, they have not been graded and are instead, banded "middle" or "high" to give an indication of the level of each response.

Please note that this resource is provided for advice and guidance only and does not in any way constitute an indication of grade boundaries or endorsed answers.

1 Within the design office of Ambermill Construction Ltd. the staff uses specialised hardware and software. In the table below tick the boxes to show which items are general (found in any office) and which are specialised.

Equipment and Software	General item (✓)	Specialised item (✓)
'3D' Printer		X
A0 Plotter		X
C.A.D. package		X
Graphics Tablet		X
Monitor	X	
Mouse	X	
'QWERTY' keyboard	X	
Word processing package	X	

[4]

2 Ambermill Construction Ltd. uses a number of ICT methods to communicate.

Draw a line joining the name of the chart with the type of information needed to be presented.

Name of chart	Information to be presented
GANTT CHART	Trend of how much overtime is being worked throughout the project's life
PIE CHART	Number of employees on site each month
LINE GRAPH	Project progress
BAR CHART	Percentage of budget used on different raw materials

[4]

3

(a) State **two** advantages to the designers at Ambermill Construction Ltd. of using electronic drawings rather than traditional paper based drawings.

Advantage 1 They could save and modify drawings. ....

Advantage 2 If they need to send the drawings to other sites, they can do this electronically by email. .... **[2]**

(b) State **one** disadvantage to the designers at Ambermill Construction Ltd. of using electronic drawings rather than traditional paper based drawings.

Disadvantage It limits viewing options because you need a powerful computer to view the images and you don't have these on-site. .... **[1]**

4 Explain **three** reasons why Ambermill Construction Ltd. might use videoconferencing to discuss the design of a new building.

Reason 1 It's cheaper to have meetings with the team who might be scattered on sites around the world than to make them fly back. ....

Reason 2 Presentations can be made online and shared with other sites. ....

Reason 3 Anyone with an internet connection and a computer can participate so it means that many employees can attend the meeting easily. .... **[6]**

5   Ambermill Construction Ltd.'s management has decided to use 'Web 2.0' applications in the office as part of their on-line strategy.

Each of the company's project managers has been instructed to keep an on-line diary of project progress.

What is the usual name for this type of on-line diary on the internet?
       Blog

       .... **[1]**

6   State **two** other types of 'Web 2.0' application useful to Ambermill Construction Ltd.

   Type 1   Wikis would be useful to collaborate on construction details
   ....

   ....
   Type 2   They could also use document sharing to collaborate on construction and maintenance documents.
   ....

   .... **[2]**

7   Ambermill Construction Ltd. uses a number of different types of software.

State the type of software that would be most suitable for each of the tasks shown in the table below.

You may use the same software more than once. Do **not** use brand names.

Task	Type of software
To store and search customer data	Database
To write a letter	Word processor
To calculate the cost of construction	Spreadsheet
To modify a web page graphic	Graphics package
To present data at a conference	Presentation software

[5]

8   Ambermill Construction Ltd. promotes itself as an 'environmentally friendly' company. ICT is used both in the design of the building and within the building itself.

Explain **two** ways ICT can be used within the building to reduce its environmental impact.

Way 1 .....It can use detectors to switch lights on automatically at the presence of people.................

....

....

....

Way 2 .....It can be used to control heating and lighting systems so that when rooms are not in use, they would

.....not be consuming energy..

....

.... **[4]**

9   In the table below tick **three** essential items of hardware or software that Ambermill Construction Ltd. would need in order to connect to and search the internet.

Hardware and software	Essential item (✓)
Digital camera	
Ethernet card	x
Hard drive	
Network cable	x
Printer	
Router	x
Speakers	

[3]

[Turn over

10 *Discuss how Ambermill Construction Ltd. could use a computer based 'Expert' System.

The quality of written communication will be assessed in your answer to this question.

Expert systems are created by experts on a specific area. Information is gathered and collected in a huge database that can be consulted for information not available on site. Ambermill would use a construction expert system to access data and skills that their employees lack. They could update it with new information on projects as it is known to ensure that searches made by the search engine produce the best possible results. Expert systems are also able to make deductions through an inference engine using logic rules so that if the company hasn't actually entered the exact information into the database, the system will be able to work out an answer to a question using it's in-built logic. It could also identify potential problems on a project using the inference engine and the knowledge base.

Ambermill would have to pay for a specialised system that could be tailored to their specific needs, but it could also be accessed by any employee from anywhere with an internet connection.

Ambermill would be advised to buy such a system even though it's a sizeable investment, but it would maximise their efficiency and expertise so would be a wise investment.

[8]