

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										



General Certificate of Secondary Education
June 20XX

Information and 45203/CB Communication Technology

Unit 3 Practical Problem Solving in ICT

Specimen Candidate Booklet: Problem 1

Instructions

- You have approximately 25 hours in which to solve this Problem. Your teacher will control and organise research within lesson time.
- There are restrictions on when and where you can work on this Problem. Your teacher will explain them to you. For example, you can do work that you intend to hand in for marking only when a teacher is present so that he or she can confirm that the work is your own.
- Before beginning the Problem, read the whole of this Candidate Booklet thoroughly. You can ask your teacher to explain anything in this booklet that you do not understand.
- You must not work with other students on anything that you intend to hand in for marking.

Unit 3: Practical Problem Solving in ICT

Problem 1: Help to organise a foreign exchange visit

Your school or college plans to organise, for students, a foreign exchange visit to another country. You are to produce a model of the solution to the problem but you are not required to use real data.

1 Overview of the Problem:

You must help the Organiser of the visit by producing a practical ICT solution which will improve the running of the foreign exchange visit. You must also explain what you have done to the Head of the school/college.

2 You must provide an ICT solution that will help the Organiser:

<ul style="list-style-type: none"> • model the cost of students who are going on the visit
<ul style="list-style-type: none"> • gather information about students who are planning to go on the visit. He/she will need to know their personal and contact details, information about any medical conditions and dietary requirements. You will have to find a way of collecting and storing this information
<ul style="list-style-type: none"> • contact parents to inform them of specific details about the visit
<ul style="list-style-type: none"> • record which students have not paid in full for the visit. The Organiser must be able to remind parents of any students who haven't paid in full by the deadline date
<ul style="list-style-type: none"> • generate lists to use both before and during the visit.

Your teacher will provide you with some background information about a foreign exchange visit.

In addition:

The Head of your school or college wants a report providing key facts about your ICT solution to help to organise the foreign exchange visit. You must produce the report. The report can either be paper based or interactive, e.g. prepared using PowerPoint with supporting notes, if necessary. The report must include the information that you have produced to help the Organiser of the visit.

3 You must keep a Portfolio of the work you want to be marked

Your portfolio is where you collect the evidence that you have produced. You should imagine that the portfolio is to be used by another person who is interested in how you produced your solution, to help them to do something similar.

- You must keep all the work you produce for the Organiser and the Head in hard copy in a Portfolio (or put **all** of your work on a CD-ROM if **any** part of your solution is interactive). It is important that you use the headings in the table on page 4 (Milestones, etc) at the top of any work that you want to be marked by your teacher.
- If you are putting hard copy printouts in your Portfolio, put the work in the order given in section 6 below, number each page and fasten it all together. Take it out of any plastic sleeves before you hand it in to your teacher for marking. Each page should have your name, centre and candidate number clearly shown on it. You will also need to complete and sign a Candidate Record Form which your teacher will provide.
- If you are putting your work on a CD-ROM or DVD, put the work for each heading in a folder. Each folder must be called 'Milestones', 'Risk' etc. Inside each folder the work must have a file name which shows the order in which it must be seen or read.

4 In order to collect work for your Portfolio you must:

- remember that you are looking to provide ICT solutions for the needs of the Organiser and a report for the Head
- plan what you are going to do to help the Organiser and when it will need to be done in order to meet a date provided by your teacher
- avoid taking any unnecessary risks when working with ICT and provide evidence of what you did to avoid risks e.g. to avoid the risk that your work will become corrupted, you must keep a back up copy of files
- manage and keep track of your progress e.g. using a 'checklist', in a blog, a diary, or something similar
- ensure that the ICT solutions you provide will meet the needs of the organiser and do the job intended
- evaluate the success of your ICT solutions and the way in which other people have (or could have) contributed.

5 Software tools and techniques are needed for:

- planning, recording, keeping track of and evaluating the progress made
- creating a method to collect information
- storing and managing the information collected
- producing lists the Organiser requires
- making the report
- selecting and combining this information.

You are free to use whatever software tools and techniques that are available to you.

6 What your teacher will be looking for and how to provide that evidence:

Your teacher will provide you with more information about the things listed below.

You will be assessed against the following headings:	What you will need to produce:
Milestones – (maximum 9 marks)	A A plan of the stages you think are needed to solve this problem, showing how you will break them down into manageable steps, which include time and resource management.
Risk – (maximum 6 marks)	B The risks you think may occur while producing or using your solution. The thing, person or group of people that may be at risk.
Progress – (maximum 6 marks)	C How you will manage to keep track of your progress as you move towards finding a solution.
Managing storage – (maximum 6 marks)	D How the information in all sections below will be stored and managed.
Collect information - (maximum 9 marks)	E What information about students and parents the Organiser will need in order to manage the exchange visit. How you will collect this information.
Select information - (maximum 9 marks)	F How much will students have to pay for the foreign exchange visit? What different things will the school be charged for? How can the organiser manage to keep the overall student cost within a set amount. G What information about the exchange visit the Organiser will need to tell parents. The best way to provide parents with this information. H How you will produce lists of any students who had not paid in full by 2 weeks before the visit. How the Organiser can tell the parents of any students who have not yet paid in full for the visit. I How you will produce lists of students with medical conditions and with special dietary needs knowing that this list will be needed by the Organiser during the visit.
Format information - (maximum 6 marks)	J Use one or more suitable formats for the evidence from E, F, G, H, I or L.
Develop information - (maximum 15 marks)	K Your explanation to show how you developed the solutions (e.g. include earlier versions of the solution). Evidence will usually be taken from your work in parts E, F, G, H, I or L.
Produce a report - (maximum 15 marks)	L Your report for the Head. This will need to be at least four A4 pages in length (whether paper based or interactive).
Evaluate my own work - (maximum 10 marks)	M Explanations about: - why your solutions met the needs of the organiser - what parts of your solution could have been improved and how they could have been improved
Evaluate others' use of ICT - (maximum 9 marks)	N Descriptions about the impact that working with others could have had on the ICT solution.

The quality of your use of English and ICT terms

Remember that the work that you submit in your portfolio will be marked by your teacher on how well you communicate your ideas, including:

- (i) the way in which you use grammar, spell and punctuate your work. Your work should be legible at all times
- (ii) using a style of writing which is appropriate to the person you are writing it for.
- (iii) organising the information clearly, using ICT terms where they are needed.