

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

CDT: DESIGN AND COMMUNICATION

7048/02

Paper 2 School Based Assessment

October/November 2007

INFORMATION FOR THE EXAMINATION IN 2007

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

You are required to spend two semesters (terms) designing and realising possible solutions to one of the following problems. Wherever possible you should apply your chosen problem to an actual location in your local area. **Remember that this is coursework and you may seek guidance from your teacher or any other sources that may support you in developing your design work.**

This document consists of 6 printed pages and 2 blank pages.

- 1 Consider the situation where a beach volleyball area is to be built. One of the facilities is to be a stand for up to fifty spectators.

Research:

- (a) existing volleyball areas;
- (b) possible sites for the volleyball area.

Identify:

- (a) a suitable site for the volleyball area;
- (b) the range of facilities that the area will include.

Develop a design for a beach volleyball area.

Produce a model of the volleyball area together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 2 Consider the situation where a mobile phone company requires a counter top point of sale display stand to hold and promote one of its phones. The stand is to be made from card.

Research:

- (a) mobile phones;
- (b) counter top point of sale display stands.

Identify a suitable mobile phone that you will design a stand for and collect some information about it.

Develop a design for a counter top point of sale display stand for a mobile phone.

Produce a prototype of the stand together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 3** Consider the situation where a sensory garden which blind and partially sighted people is to be built.

Research:

- (a)** possible sites for the garden;
- (b)** the types of plants and features that could be used in the garden.

Identify:

- (a)** a suitable site for the garden;
- (b)** the plants and features that the garden will include.

Develop a design for a sensory garden.

Produce a model of the garden together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 4** Consider the situation where bunches of exotic flowers grown in Mauritius are to be packaged so that tourists can take them home as a reminder of their holiday.

Research:

- (a)** the types of exotic flowers that are grown in Mauritius;
- (b)** existing packaging for flowers.

Identify the type of flowers that you will package and collect some information about them.

Develop a design for packaging flowers.

Produce a prototype of the packaging supported by drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 5 Consider the situation where a bus company requires a leaflet advertising trips to various parts of Mauritius and a holder to display the leaflets. The leaflet is to be made from one sheet of paper. The holder is to be made from card. It should be flat packed so that it can be easily carried to hotels and other places where it will be used.

Research:

- (a) bus companies that run trips;
- (b) leaflets and leaflet holders.

Identify a particular bus company that runs trips and collect some information about it.

Develop designs for:

- (a) the leaflet;
- (b) the leaflet holder.

Produce prototypes of both the leaflet and the leaflet holder.

These should be accompanied by supporting drawings that fully communicate your designs.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 6 Consider the situation where a company that sells sun cream is to give children free sunglasses and sun hats as part of one of their promotions. The sunglasses are to be made from card with plastic lenses and the hat will be made from either paper or thin card. The designs are to be based on a theme that will appeal to children.

Research:

- (a) existing designs for card hats and/or sunglasses;
- (b) themes that would appeal to children.

Identify a suitable theme for your designs and collect some information about it.

Develop designs for:

- (a) a pair of sunglasses made from card with plastic lenses;
- (b) a sun hat made from paper or thin card.

Produce prototypes of both the sunglasses and sun hat.

These should be accompanied by supporting drawings that fully communicate your designs.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 7** Consider the situation where a hotel is to give each of its guests a disposable camera. The camera is to be packaged in a blister pack. On the back of the packaging will be information about places of interest in Mauritius that people might like to take photographs of.

Research:

- (a)** existing blister packs;
- (b)** disposable cameras.

Identify:

- (a)** a disposable camera that you will base your design on and collect some information about it;
- (b)** places of interest that you will include information about on the back of the packaging.

Develop a design for the blister pack.

Produce a prototype of the blister pack together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 8** Consider the situation where a zoo or wildlife park requires a series of simple hand operated mechanical toys based on animals to sell to their visitors.

Research existing mechanical toys and the types of mechanism they use.

Identify an animal that you will base your work on and collect some information about it.

Develop a design for a simple hand operated mechanical toy.

Produce a prototype of the mechanical toy together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 9** Consider the situation where a company that manufactures footballs is to make a special edition football to commemorate the next football world cup.

Research:

- (a) existing ways of packaging footballs;
- (b) where and when the next football world cup is going to take place.

Identify:

- (a) the football that you will base your work on and collect some information about it.
- (b) information about the world cup that you will include on the packaging.

Develop a design for the packaging to hold a commemorative football.

Produce a prototype of the packaging together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

- 10** Consider the situation where a small food stall that can be towed by a bicycle is required.

Research:

- (a) existing portable food stalls;
- (b) bicycle trailers.

Identify:

- (a) the type of food that the stall will sell;
- (b) the type of bicycle that will be used to tow the stall and collect some information about it.

Develop a design for a food stall that can be towed by a bicycle.

Produce a model of the food stall together with supporting drawings that fully communicate your design.

Devise and use suitable techniques for testing your work against its original specification so that it can be evaluated fully.

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.