Tuesday 2 May 2017 – All day

AS GCE DESIGN AND TECHNOLOGY

F521/01 Advanced Innovation Challenge
SESSION 1 AND 2 – PRACTICAL ASSIGNMENT

Candidates answer on this Workbook.

OCR supplied materials: None

Other materials required:
• Modelling materials and equipment

Duration: 6 hours

INSTRUCTIONS TO CANDIDATES

• Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
• Read each question carefully. Make sure you know what you have to do before starting your answer.
• Write your answer to each question in the space provided. All work should be completed on the Workbook. Additional paper will not be marked.
• You will have a total of 6 hours to complete this part of the examination. There will normally be two 3 hour sessions.

INFORMATION FOR CANDIDATES

• At the end of the examination you must have:
  • selected one of the Design Challenges detailed in this Workbook;
  • completed the Workbook showing your creative thinking and how your idea works;
  • produced a model/prototype to show the important features of your design;
  • have at least three photographs fixed in your Workbook showing your modelling activities.
• The total number of marks for this paper is 60.
• This document consists of 22 pages. Any blank pages are indicated.

Your Workbook will be collected at the end of sessions 1 and 2 and reissued when you sit session 3 the Reflection Test.
Entertainment

Entertainment is an activity that holds the attention of an audience and provides enjoyment. The most common forms often involve music, drama or dance, and this can be on a small or large scale.

You have been approached as a designer to address **one** of the following Design Challenges and design an **innovative** product.

**Design Challenge One**

Children are often entertained in groups at parties. Design a product that can be set up to provide entertainment at a children’s party by a travelling entertainer.

- The product should be easy to transport between venues.

**Design Challenge Two**

Street entertainers and buskers are common in major cities, a charity wishes to sponsor a street entertainment event and need a method to collect and store money securely.

- The product should be reusable.

**Design Challenge Three**

A council is organising an outdoor show in a park. The organisers need a method of providing shelter in the event of extreme weather that would still allow people to watch the event.

- The method of protection must not obstruct vision at the show.

**Design Challenge Four**

A school wishes to hold an outdoor summer show of music and drama. There is a need for a temporary system or product that can allow the performances to be seen by all.

- The system/product should be able to be used for a variety of performers.

**Design Challenge Five**

At large entertainment events litter is a problem. The organisers of an outdoor sporting event need a method of litter collection that will encourage people to keep the site litter free.

- The method should raise awareness of sustainability.

**Design Challenge Six**

A family entertainment day in the park is being organised by a council. There is a need for a promotional product that can be sent out prior to the event to create interest.

- The product should be interactive.
PLEASE DO NOT WRITE ON THIS PAGE
Session 1

1  Explore the chosen Design Challenge. What are your initial thoughts?

Use sketches and notes to communicate your thinking.

2  Which of your initial thoughts offers greatest potential to be taken further? Why?
Additional space

Boxes 3, 4 and 5 are at the end of this booklet on the fold-out page
Start designing. Use annotated sketches and/or models to show your ideas. You may wish to use annotated photographs to communicate modelling.
Ideas continued.
7 What do you think of your ideas so far, how has your job bag helped to inspire/direct your ideas? Use annotated sketches and/or annotated photographs to explain.

8 Which is your best idea? Justify your decision.
9 Reflect and Record

You will be asked to present your ideas (no more than 5 minutes).

Use this space to plan what you will say. Think about your brief, specification and key factors of your design.

10 Feedback

Record any suggestions made by others. Identify further modifications that you could make in response to this feedback.
11 Developing your idea, improvements and modifications

Use annotated sketches and/or annotated photographs to communicate your thoughts.

Include details of materials, components or ingredients, methods of manufacture and issues relating to sustainability in your answer.
12 Your Model

List the materials/ingredients you have chosen to make your prototype.

<table>
<thead>
<tr>
<th>Component description</th>
<th>Material/Ingredient</th>
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Show how these components could be joined/combined together.
13 Action Plan for Session 2
Session 2

14 Review

Record any new thoughts about your design. Use annotated sketches and/or notes.

15 Modelling – Test, develop and refine your design proposal.

Progress Report 1

Problems you have come up against so far. What are the possible solutions?
16 Continue Modelling. You have 40 minutes’ modelling time.

Progress Report 2

Did your solutions work? Why?

Which areas of modelling have been most successful so far?
17 **Planning.** Plan what you will be doing/making during the final modelling activity.
18 Evaluation of Developed Design Proposal

Describe the effectiveness of your developed design proposal and how it meets the needs of the original Design Challenge. Use sketches and notes to show how your design could be improved. Evaluate your final proposal against your specification, you may use annotated sketches and/or annotated photographs.
Evaluation Continued
3 Decision Time

Your Design Brief

I am going to design and model a …

4 Key Points

Examine the contents of your job bag remembering your design brief. Identify key points, which will help you write your specification.

5 Your Design Specification

To be successful my product must …