

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

General Certificate of Secondary Education

DESIGN AND TECHNOLOGY (PRODUCT DESIGN) PILOT



UNIT 4 Designing Influences

Friday 23 JUNE 2006 Afternoon 1 hour 30 minutes

Candidates answer on the question paper. Additional materials: None

| Candidate Name | | | | | | |
|-------------------|--|--|---------------------|--|--|--|
| | | | | | | |
| Centre Number | | | Candidate Number | | | |

TIME 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the spaces provided.
- You must answer all questions.
- Write your answers, in blue or black ink, in the answer booklet provided.
- Only use blue or black ink or dark pencil (HB) when sketching.
- Read each question carefully and make sure you know what to do before starting your answer.
- Do not write in the bar code. Do not write in the grey area between the pages.
- **DO NOT** WRITE IN THE AREA **OUTSIDE** THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.

INFORMATION FOR CANDIDATES

- The total number of marks for this paper is **60**.
- Section A is worth 30 marks. You are advised to spend no more than 45 minutes on this section.
- Section B is worth 30 marks. You are advised to spend no more than 45 minutes on this section.
- The number of marks is given in brackets [] at the end of each question or part question.
- You will need to select one trendsetter or designer from the table when answering Section B of this paper. The 'Trend setter' and 'Iconic product' must be linked to one material area.

This question paper consists of 13 printed pages and 3 blank pages.

SECTION A

You are advised to spend 45 minutes on this section.

1 Fig. 1 shows the packaging for some biscuits. The packaging uses different text layout styles.

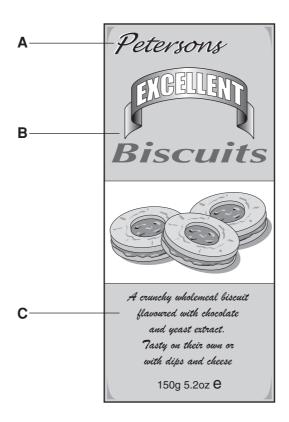


Fig. 1

(a) Complete the table below to identify the types of text layout on the biscuit packaging. The first one has been done for you.

| | Type of text layout | | | | | | |
|---|---------------------|--|--|--|--|--|--|
| Α | Left justified text | | | | | | |
| В | | | | | | | |
| С | | | | | | | |

[2]

(b) Give two properties that the packaging material for the biscuits should have.

Property 1 ______[1]

Property 2 ______[1]

| (C) | List three pieces of information that all food packaging is required to have by law. | |
|-----|--|-------------|
| | 1 | [1] |
| | 2 | [1] |
| | 3 | [1] |
| (d) | Write a short evaluation of the aesthetics of the biscuit packaging. | |
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| | | |
| | | [3] |
| | | [Total: 10] |

2 Fig. 2 shows a pair of training shoes.

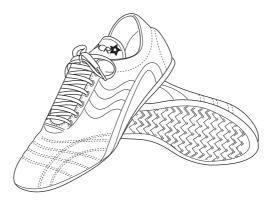


Fig. 2

| (a) | State three design features of training shoes. | |
|-----|--|-----|
| | Feature 1 | [1] |
| | Feature 2 | [1] |
| | Feature 3 | [1] |
| (b) | Give two reasons why companies use logos or trademarks on their products. | |
| | Reason 1 | |
| | | [1] |
| | Reason 2 | |
| | | |
| (c) | Many products sold in the United Kingdom are manufactured overseas. | |
| | Give two reasons why companies choose to manufacture their products overseas. | |
| | Reason 1 | |
| | | [1] |
| | Reason 2 | |
| | | |
| | | |

| (d) | Explain oversea | - | some | people | think | it is | S | unethical | for | companies | to | manufacture | products |
|-----|-----------------|---|------|--------|-------|-------|---|-----------|-----|-----------|----|-------------|----------|
| | | | | | | | | | | | | | |
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[Total: 10]

3 Fig. 3 shows a modern television and a television from the 1950's.

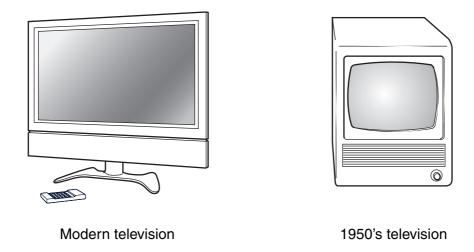
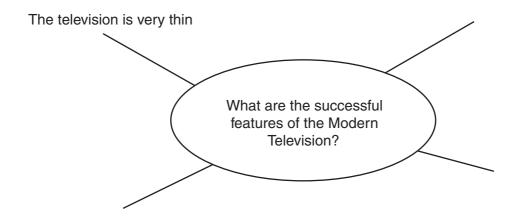


Fig. 3

(a) Complete the diagram below by adding **three** other successful features of the Modern Television.



| Explain why two of the features you have identified have made the modern television successful. An example has been done for you. |
|--|
| Point 1 The television is very thin. |
| Explanation: Advances in technology have meant that the screen of the television is much thinner so it takes up less space in the room. |
| Point 2 |
| Explanation |
| |
| [2] |
| Point 3 |
| Explanation |
| |
| [2] |
| Explain why many people replace electrical products even when they are still working. |
| |
| |
| [3] |
| [0] |
| |

SECTION B

You are advised to spend 45 minutes on this section.

This question draws upon the research you carried out as part of your examination preparation.

4 The table below shows the eras, trend setters and iconic products for this examination.

| Material area | | Material area Eras and Movements | | Examples of Iconic products from this area |
|---------------|------------------------|----------------------------------|--------------------|--|
| 1 | Resistant Materials | 30s and 40s | Bakelite | Radio, TV or other domestic product made predominately in Bakelite |
| 2 | Graphics | 30s | Harry Beck | London Underground map |
| 3 | Electronics | 90s | Microchips | Mobile phone |
| 4 | Textiles | 90s | Goretex | Sports clothing |
| 5 | Food | 40s | British Government | War time rationing |

| (a) | Trend setter or designer chosen from the table above | | | | | | | |
|-----|--|--|--|--|--|--|--|--|
| | Explain the importance of this trend setter or designer. | | | | | | | |
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| | [4 | | | | | | | |

| (b) | Explain why the product you have chosen has been so influential. Make specific reference to design, innovation and function. | | | | | | | |
|-----|---|--|--|--|--|--|--|--|
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| | [6] | | | | | | | |

5 This question draws upon the research you carried out as part of your examination preparation.

You will need to:

- Write a specification
- Produce a range of initial ideas
- Develop **one** idea
- Give details of the final proposal

Five different design needs are given below.

Please indicate using a [✔] one design need you are going to consider.

| | Design need | / |
|------------------------|--|----------|
| Resistant Materials | A company that produces mirrors and shelving units wants to produce a wall mounted mirror in the style of 30s and 40s bakelite products. | |
| Graphics | An invitation to a school's 'prom' based upon the 1930's. The invitation must reflect the graphic style of the era. | |
| Electronics | A mobile phone producer requires an audible 'attack' alarm that can be attached to a mobile phone in order to improve an individual's personal safety. The device will be sold as an accessory. Details of the electronic system must be given. | |
| Textiles | A 'Goretex' hat to be used by athletes during training. | |
| Food | A nutritious and appetising 'war time' meal is needed for year 9 pupils as part of a project on the second world war. | |

| (a) | Identify four | decian | specification | nainte for | Vour chosen | design | haad |
|-----|----------------------|--------|---------------|------------|-------------|---------|-------|
| (a) | Taeniliv Iour | CHSICH | SOECIIICATION | DOMES TO | voui chosen | CESICIL | need. |

| 1 | [1] |
|---|-----|
| 2 | [1] |
| 3 | [1] |
| 4 | [1] |

(b) Use sketches and notes to show your initial ideas.

(c) Use sketches and notes to develop **one** of your initial ideas.

(d) Give details of your final proposal showing how it meets the four design specification points you identified in part (a) of this question.