

Design & Technology
AQA A-Level

Protecting designs and intellectual property

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. What government office grants Patents?

- A** Intellectual property office
- B** International property office
- C** Intellectual property organisation

Q2. How long does a patent last?

- A** 30 years
- B** 20 years
- C** 70 years

Q3. For your work to be covered by copyright it needs to be what by definition?

- A** Original and Tangible
- B** New and Original
- C** Physical and Original

Q4. Why might someone apply for a patent?

- A** Add value to the business
- B** They think their idea already exists
- C** To secure rights to an existing solution

[illegible]

Q6. Define each of the following terms:

- copyright
- trademark
- patent

(3 marks)

Q7. Give two disadvantages of patenting design ideas **(2 marks)**

Q8. Give two forms a trademark may take to identify a genuine product **(2 marks)**

Answers

Q1. A

Q2. B

Q3. A

Q4. A

Q5.

- Allows any individual to design, develop, distribute and share their own work to anybody who wishes to make use of it in contrast to traditional designs whose ownership and rights to use are closely protected.
- The ethos is to contribute for the greater good of society rather than traditional manufacture which is often financially driven.
- Reduces opportunities for individuals and small businesses to profit from their own work.
- Design work is often shared for no profit or fee so can prove popular with small designer/makers or hobbyists, removing the need to pay companies for their goods.
- Supports collaborative development, so improvements and iterations are able to be constantly made and released in a much quicker timescale than commercial products.
- Open design products can be developed with input from a huge volume of users with almost endless experience and skills, whereas traditional manufacture tends to have smaller teams with finite experience.
- Open design can remove the demand and reliance on larger manufacturers as technologies such as 3D printing at home grow in popularity
- Increased use of open design has resulted in more regular copyright breaches on items such as CAD files that are shared for 3D printing.
- Open design offers an endless possibility for customisation and maintenance of products, reducing the frequency of purchasing replacement parts for products.
- Open design is not subject to any international standard for testing or quality control which can prevent the designer/manufacturer having proven confidence in a design of a component.
- The use of open design has created a culture in which many internet users feel they can use any works they find online, ignoring copyright or patent laws in their own country.
- Traditional procedures for protecting designs such as patents are no longer needed.

Q6.**Copyright**

- A legal right that provides protection for material such as books, computer code, photography, drama, music, films, television programmes etc.

Trademark

- A protected logo or series of words that is a unique identifier of a company or brand. Eg DuPont™ - Kevlar®.
- Both registered and unregistered trademarks are acceptable responses.

Patent

- A government issued protection order covering a new idea or invention

Q7.

- Designs become publicly available / secrecy is lost
- Time consuming / 3 to 4 years to obtain a patent
- Speed of technological development may mean that the invention is out of date by the time the patent is granted
- Cost of registering the patent / annual fees for maintaining the permit
- May need to be prepared to defend your patent
- Often the patent is not that effective as many patents can be 'copied' by clever changes to the design / legal loopholes / minor changes
- Limits development / design improvements by other companies / discourages the sharing of new design ideas
- Patents are time limited / can only be renewed for 20 year period / require renewal every 4 years
- Monopoly situations arise when only one manufacturer is allowed to produce a product
- Patents may not be valid internationally

Q8.

- Symbol / insignia / logo / icon
- Word / phrase / slogan
- Name / initials
- Device / design / style
- Sounds / jingle
- Colour schemes