ENGLAND GCSE DESIGN AND TECHNOLOGY AQA · UNIT 1 · 25 QUESTIONS

New Technologies, Energy and Materials — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1

A hammer handle is made from hickory, a hardwood. Where does hardwood come from?

A Slow growing broad leaf trees

B Sheep kept on a farm

C Fast growing cone bearing trees

D Crude oil pumped from the ground

Understand It with Pulse

Flag a mistake

2 **An electric kettle has a thermochromic strip that changes colour as the water heats. What is a thermochromic material?**

- A A material that changes shape when it is heated
- B A material that gets heavier when it is cooled
- C A material that changes colour when its temperature changes
- D A material that changes colour when light shines on it, in some situations

Understand It with Pulse | Flag a mistake

3 **A toaster is made from metals and polymers. Which of these is a polymer?**

- A Steel
- B Pine
- C Nylon
- D Cotton

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4 **A cordless drill runs on a rechargeable battery. How is a rechargeable battery different from a single use battery?**

- A It can be charged and used many times
- B It can only be used once and then thrown away
- C It holds no energy until it is thrown away
- D It works only when it is connected to the Sun

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5 **A backpack is made from Gore-Tex fabric. What is Gore-Tex?**

- A A fabric that melts when it gets wet
- B A fabric that is used only for making curtains
- C A fabric that keeps rain out but lets sweat escape
- D A fabric that lets rain in but keeps sweat inside, in some situations

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6 **A hand saw cuts a plank of pine. Is pine a hardwood or a softwood?**

- A Softwood
- B A ferrous metal
- C A thermoplastic
- D Hardwood

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7 **A paper is worth 80 marks. How many marks is 15 percent of the paper?**

- A 12
- B 11
- C 120
- D 13

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8

Why is CAD useful before a product is made?

A The product can be sold before it is designed

B The product needs no testing once it is made

C The product can be made without any materials

D Problems can be spotted and fixed on screen

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9

Why is Gore-Tex used for outdoor jackets?

A It makes the jacket heavier in the rain

B It keeps the wearer wet and stops sweat escaping

C It keeps the wearer dry and lets sweat out

D It stops the jacket from being washed at all

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10 **What is a smart material?**

A A material that changes when something around it changes

B A material that is always made by hand

C A material that never changes in any way at all, in some situations

D A material that can only be used once

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11 **How can new technology help the environment?**

A It can stop all factories from using energy

B It can make every product last forever

C It can cut the waste and energy used in making products

D It can remove all waste from the world at once, in some situations

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12 **A heater rated at 1 kW runs for 2 hours. How much energy does it use?**

- A 2 kWh
- B 3 kWh
- C 20 kWh
- D 1 kWh

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13 **What is GRP?**

- A Cotton fibres set in a woollen cloth
- B Glass fibres set in a plastic resin
- C Wood fibres set in a sheet of paper
- D Steel fibres set in a block of concrete

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14 **What are papers and boards made from?**

A Crude oil

B Molten metal

C Wood pulp

D Sheep wool

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15 **How does hydroelectric power work?**

A Water is pumped uphill to make electricity

B Water is heated until it turns into coal

C Water is frozen and then dropped on a turbine, in some situations

D Water stored high up flows down through a turbine

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16

How were fossil fuels formed?

A From sunlight heating the ground each day

B From the remains of living things over millions of years

C From rain falling on rocks over a few days, in some situations

D From trees growing in a single summer

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17

How long is the AQA Design and Technology written paper?

A 1 hour 30 minutes

B 3 hours

C 1 hour

D 2 hours

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18 **How is a rechargeable battery different from a single use battery?**

A It holds no energy until it is thrown away

B It works only when it is connected to the Sun

C It can be charged and used many times

D It can only be used once and then thrown away

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19 **A paper is worth 200 marks. How many marks is 15 percent of the paper?**

A 29

B 31

C 300

D 30

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20 **What does CAD stand for?**

A Computer aided drawing

B Computer assisted data

C Computer aided design

D Central automated design

Understand It with Pulse | Flag a mistake

21 **What is Gore-Tex?**

A A fabric that melts when it gets wet

B A fabric that lets rain in but keeps sweat inside, in some situations

C A fabric that is used only for making curtains

D A fabric that keeps rain out but lets sweat escape

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22

Where are photochromic materials used?

A In kettles that boil water very quickly, in some situations

B In spectacle lenses that darken in sunlight

C In hammers that hit nails very hard

D In ropes that lift heavy loads

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23

How can new technology affect society?

A It can make every home look exactly the same

B It can stop people from using any machines

C It can remove the need for any schools at all

D It can change how people live and work

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24 What is carbon fibre?

- A A soft and heavy material made from thick ropes, in some situations
- B A very strong, stiff and light material made from thin fibres
- C A weak and brittle material made from glass
- D A cheap material made from recycled paper

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25 What is the difference between a hardwood and a softwood?

- A Hardwood comes from sheep and softwood comes from cotton plants
- B Hardwood comes from crude oil and softwood comes from coal
- C Hardwood comes from slow growing broad leaf trees and softwood from fast growing cone bearing trees
- D Hardwood comes from fast growing cone bearing trees and softwood from slow growing broad leaf trees

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ANSWER KEY

1. A
2. C
3. C
4. A
5. C
6. A
7. A
8. D
9. C
10. A
11. C
12. A
13. B
14. C
15. D
16. B
17. D
18. C
19. D
20. C
21. D
22. B
23. D
24. B
25. C

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