ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY HIGHER · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 to let Brett know so he can fix it.

1 **A plant cell in pure water becomes turgid. What does turgid mean?**

- A empty and flat
- B dead and dry
- C shrunken and soft
- D swollen and firm

Understand It with Pulse | Flag a mistake

2 **Which plant tissue carries water up the plant?**

- A epidermis
- B xylem
- C cortex
- D phloem

Understand It with Pulse | Flag a mistake

3 **What do antibiotics kill?**

A fungi

B viruses

C bacteria

D protists

Understand It with Pulse | Flag a mistake

4 **Photosynthesis produces oxygen at a rate of 3 cm cubed per minute. How much oxygen is produced in 10 minutes?**

A 30 cm^3

B 20 cm^3

C 40 cm^3

D 60 cm^3

Understand It with Pulse | Flag a mistake

5 **Blood glucose falls from 9 mmol per litre to 4 mmol per litre. What is the fall?**

A 4 mmol/L

B 5 mmol/L

C 6 mmol/L

D 7 mmol/L

Understand It with Pulse | Flag a mistake

6 **What is meiosis?**

A the fusion of two gametes

B cell division that makes body cells

C the copying of DNA

D cell division that makes gametes

Understand It with Pulse | Flag a mistake

7 **Producers in a food chain hold 100000 kJ of energy. About 10 percent passes to the primary consumers. How much energy reaches them?**

- A 100000 kJ
- B 10000 kJ
- C 20000 kJ
- D 5000 kJ

Understand It with Pulse | Flag a mistake

8 **An atom has atomic number 8 and mass number 16. How many electrons does it have?**

- A 8
- B 6
- C 16
- D 24

Understand It with Pulse | Flag a mistake

9 **How many covalent bonds does an oxygen atom form in a water molecule?**

- A 1
- B 4
- C 3
- D 2

Understand It with Pulse | Flag a mistake

10 **How many moles are there in 12 g of a substance with a relative formula mass of 40?**

- A 0.3
- B 0.9
- C 0.6
- D 0.15

Understand It with Pulse | Flag a mistake

11 **How many moles are there in 20 g of a substance with a relative formula mass of 20 ?**

A 2

B 3

C 0.5

D 1

Understand It with Pulse | Flag a mistake

12 **In a reaction, the energy needed to break bonds is 1200 kJ and the energy released making bonds is 1600 kJ. What is the overall energy change?**

A -400 kJ

B 1600 kJ

C -1200 kJ

D 400 kJ

Understand It with Pulse | Flag a mistake

13 **What is the Haber process used to make?**

A sulfuric acid

B ammonia

C nitric acid

D hydrogen

Understand It with Pulse | Flag a mistake

14 **In fractional distillation, where do the smallest molecules come out?**

A in the middle

B at the bottom

C they do not come out

D at the top

Understand It with Pulse | Flag a mistake

15 **What is the test for hydrogen?**

A bromine water turns colourless

B a glowing splint relights

C limewater turns cloudy

D a lighted splint pops

Understand It with Pulse | Flag a mistake

16 **Carbon dioxide is 315 parts per million in the air. How many carbon dioxide molecules are there per million air molecules?**

A 3150

B 295

C 315

D 31

Understand It with Pulse | Flag a mistake

17 **Glass is recycled at 75 percent. How much of 400 tonnes of glass is recycled?**

A 275 tonnes

B 600 tonnes

C 300 tonnes

D 325 tonnes

Understand It with Pulse | Flag a mistake

18 **A 5 kg object moves at 4 m/s. What is its kinetic energy?**

A 80 J

B 20 J

C 40 J

D 50 J

Understand It with Pulse | Flag a mistake

19 **A current of 2 A flows for 10 seconds. How much charge flows?**

- A 10 C
- B 40 C
- C 12 C
- D 20 C

Understand It with Pulse | Flag a mistake

20 **How much energy is needed to change 3 kg of a substance from solid to liquid, if the specific latent heat is 334000 J per kg?**

- A 334003 J
- B 1002000 J
- C 2004000 J
- D 501000 J

Understand It with Pulse | Flag a mistake

21 **What is contamination?**

A a type of decay that is dangerous

B radioactive material on a surface

C a type of fission that is uncontrolled

D exposure to radiation from a source

Understand It with Pulse | Flag a mistake

22 **A car goes around a roundabout. Which force keeps it turning?**

A gravity

B air resistance

C friction

D thrust

Understand It with Pulse | Flag a mistake

23 **A wave has a frequency of 5 Hz and a wavelength of 10 m. What is its speed?**

- **A** 25 m/s
- **B** 50 m/s
- **C** 100 m/s
- **D** 15 m/s

Understand It with Pulse | Flag a mistake

24 **A generator coil turns 5 times per second. How many turns is that in one minute?**

- **A** 360
- **B** 600
- **C** 240
- **D** 300

Understand It with Pulse | Flag a mistake

25 **A cell is 30 mm long in a photograph. Its real length is 0.2 mm. What is the magnification?**

- **A** × 75
- **B** × 250
- **C** × 150
- **D** × 300

Understand It with Pulse | Flag a mistake

26 **A heart beats 70 times per minute and pumps 80 mL per beat. What is the cardiac output in mL per minute?**

- **A** 6100 mL/min
- **B** 11200 mL/min
- **C** 5100 mL/min
- **D** 5600 mL/min

Understand It with Pulse | Flag a mistake

27 **A brown dog is vaccinated. What does the vaccine contain?**

A a dead or weakened pathogen

B an antibiotic

C white blood cells

D a live dangerous pathogen that causes disease

Understand It with Pulse | Flag a mistake

28 **A forest absorbs carbon dioxide. Which process does this?**

A respiration in the trees

B photosynthesis

C combustion of the wood

D decomposition in the soil

Understand It with Pulse | Flag a mistake

29 **A school lunch tray holds a meal with milk. Which nutrient is milk rich in?**

A vitamin C

B fibre

C iron

D calcium

Understand It with Pulse | Flag a mistake

30 **Rabbits with white fur survive better in snow. What is this an example of?**

A natural selection

B mutation

C artificial selection

D extinction

Understand It with Pulse | Flag a mistake

31 **A river is polluted by fertiliser. What grows too fast in the water?**

A fish

B algae

C reeds

D trees

Understand It with Pulse | Flag a mistake

32 **Silver coins conduct electricity well. Why?**

A they have free electrons

B they are heavy

C they are shiny and reflective

D they are cold

Understand It with Pulse | Flag a mistake

33 **Silver coins are made of a metal. Which property do metals have?**

A they conduct electricity

B they dissolve in water

C they are brittle

D they do not conduct electricity at all

Understand It with Pulse | Flag a mistake

34 **Hardcover books are dropped. What happens to their speed as they fall?**

A it increases

B it decreases

C it becomes zero

D it stays the same

Understand It with Pulse | Flag a mistake

35 **An ice cream cone melts. What is the melting point of the ice cream?**

A around minus 20 degrees Celsius

B around 37 degrees Celsius

C around 0 degrees Celsius

D around 100 degrees Celsius

Understand It with Pulse | Flag a mistake

36 **A cheese pizza provides energy. Which nutrient provides most energy?**

A fat

B vitamins

C fibre

D protein

Understand It with Pulse | Flag a mistake

37 **A wristwatch ticks every second. How many ticks in a minute?**

- A 12
- B 30
- C 60
- D 100

Understand It with Pulse | Flag a mistake

38 **A sailing ship crosses the sea. What is the sea mostly made of?**

- A oil
- B fresh water
- C salt water
- D sand

Understand It with Pulse | Flag a mistake

39 **A cup of coffee cools down. Energy is transferred to the surroundings. What type of change is this?**

A a chemical change

B a neutralisation

C a reversible reaction

D an energy transfer

Understand It with Pulse | Flag a mistake

40 **A castle built of limestone is damaged by acid rain. Which gas causes acid rain?**

A oxygen

B nitrogen

C carbon dioxide

D sulfur dioxide

Understand It with Pulse | Flag a mistake

41 **A chocolate cake is baked. Is baking a chemical change?**

- A no
- B never
- C yes
- D sometimes

Understand It with Pulse | Flag a mistake

42 **A bicycle freewheels downhill. What happens to its speed?**

- A it increases
- B it becomes zero
- C it decreases
- D it stays the same

Understand It with Pulse | Flag a mistake

43 **A wristwatch measures time. What is the unit of time?**

A the second

B the hour

C the day

D the minute

Understand It with Pulse | Flag a mistake

44 **An ice cream cone is put in a freezer. What happens to the liquid?**

A it condenses

B it freezes

C it evaporates

D it boils

Understand It with Pulse | Flag a mistake

45 **Hardcover books have mass. What is mass measured in?**

A newtons, the unit of force

B watts

C joules

D kilograms

Understand It with Pulse | Flag a mistake

46 **A kite rises higher. What happens to the wind speed usually?**

A it decreases

B it increases

C it stays the same

D it becomes zero

Understand It with Pulse | Flag a mistake

47 **A passenger aeroplane flies at a steady speed and height. What is the resultant force on the aeroplane?**

- A 1000 N
- B 0 N
- C 10000 N
- D 5000 N

Understand It with Pulse | Flag a mistake

48 **A guitar is plugged into an amplifier. What flows through the cable?**

- A electric current
- B sound waves travelling along it
- C water
- D light

Understand It with Pulse | Flag a mistake

49 **Glass marbles are used to model atoms. What is a limitation of the model?**

- A marbles cannot be counted accurately at all
- B marbles are too small to see properly
- C marbles are much bigger than atoms
- D marbles are the wrong colour for atoms

Understand It with Pulse | Flag a mistake

50 **A yellow school bus carries children to school. Which blood vessel carries blood away from the heart, like a bus leaving the station?**

- A a ventricle
- B a vein
- C an artery
- D a capillary

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. D
2. B
3. C
4. A
5. B
6. D
7. B
8. A
9. D
10. A
11. D
12. A
13. B
14. D
15. D
16. C
17. C
18. C
19. D
20. B
21. B
22. C
23. B
24. D
25. C
26. D
27. A
28. B
29. D
30. A
31. B
32. A
33. A
34. A
35. C
36. A
37. C
38. C
39. D
40. D
41. C
42. A
43. A
44. B
45. D
46. B
47. B
48. A
49. C
50. C

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