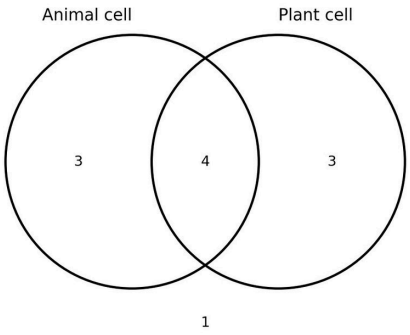
ENGLAND GCSE COMBINED SCIENCE EDEXCEL FOUNDATION · FINAL EXAM · 50 QUESTIONS

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 **The Venn diagram shows features of animal cells and plant cells. How many features are found in both types of cell?**



- **A** 4
- **B** 6
- **C** 5
- **D** 3

Understand It with Pulse | Flag a mistake

2 **What happens when a cell differentiates?**

- **A** it grows larger and larger
- **B** it moves to a new place
- **C** it becomes specialised
- **D** it divides into two identical cells

Understand It with Pulse | Flag a mistake

3 **Which bases pair together in DNA?**

- **A** A pairs with G, C pairs with T
- **B** A pairs with T, C pairs with G
- **C** A pairs with C, T pairs with G
- **D** A pairs with A, T pairs with T

Understand It with Pulse | Flag a mistake

4 **Where did the nucleus for Dolly come from?**

A from an embryo cell

B from an egg cell

C from a sperm cell

D from an adult cell

Understand It with Pulse | Flag a mistake

5 **Which disease is now prevented by the MMR vaccine?**

A tuberculosis

B malaria

C measles

D athlete's foot

Understand It with Pulse | Flag a mistake

6 **What is transpiration?**

A water uptake by roots

B water loss from leaves

C photosynthesis in leaves

D sugar transport in phloem

Understand It with Pulse | Flag a mistake

7 **What is urea?**

A a sugar stored in the liver

B a hormone that controls water

C a salt lost in sweat

D waste from protein breakdown

Understand It with Pulse | Flag a mistake

8 **A heart beats 80 times per minute. Each beat pumps 70 mL of blood. Calculate the cardiac output in mL per minute.**

- A 5700
- B 2800
- C 11200
- D 5600

Understand It with Pulse | Flag a mistake

9 **What do decomposers return to the soil?**

- A nutrients
- B water
- C oxygen
- D carbon dioxide

Understand It with Pulse | Flag a mistake

10 **An atom has 11 protons. How many electrons does the neutral atom have?**

- A 13
- B 12
- C 11
- D 10

Understand It with Pulse | Flag a mistake

11 **How many atoms of oxygen are there in one molecule of water?**

- A 3
- B 0
- C 2
- D 1

Understand It with Pulse | Flag a mistake

12 **How are insoluble salts made?**

A by precipitation

B by distillation

C by filtration

D by evaporation of the solvent

Understand It with Pulse | Flag a mistake

13 **Why is a catalyst used in the Haber process?**

A to use up the nitrogen faster

B to shift the equilibrium towards ammonia

C to raise the temperature of the reaction

D to speed the reaction up

Understand It with Pulse | Flag a mistake

14 **What happens to reactivity down Group 1?**

A it stays the same for all three metals

B it increases then decreases again

C it increases

D it decreases as the atoms get larger

Understand It with Pulse | Flag a mistake

15 **A reaction should make 200 g of product but only makes 100 g. What is the percentage yield?**

A 40%

B 60%

C 50%

D 100%

Understand It with Pulse | Flag a mistake

16 **Which gases are greenhouse gases?**

A oxygen and nitrogen in the air

B carbon dioxide and methane

C oxygen and water vapour only

D nitrogen and argon

Understand It with Pulse | Flag a mistake

17 **What is the SI unit of mass?**

A metre, the unit of length

B kilogram

C joule, the unit of energy

D newton, the unit of force

Understand It with Pulse | Flag a mistake

18 **An object speeds up from 10 m/s to 20 m/s in 10 seconds. What is its acceleration?**

A 2 m/s²

B 0.5 m/s²

C 10 m/s²

D 1 m/s²

Understand It with Pulse | Flag a mistake

19 **What is kinetic energy?**

A energy of movement

B energy of heat

C energy of position

D energy of light

Understand It with Pulse | Flag a mistake

20 **A wave travels at 20 m/s with a wavelength of 10 m. What is its frequency?**

- **A** 200 Hz
- **B** 4 Hz
- **C** 2 Hz
- **D** 1 Hz

Understand It with Pulse | Flag a mistake

21 **What do all electromagnetic waves travel at in a vacuum?**

- **A** zero speed
- **B** the speed of sound
- **C** different speeds
- **D** the speed of light

Understand It with Pulse | Flag a mistake

22 **In alpha decay, what happens to the atomic number of the nucleus?**

A it stays the same

B it falls by 4

C it falls by 2

D it rises by 2

Understand It with Pulse | Flag a mistake

23 **A machine transfers 1000 J of energy in 50 s. Calculate the power in W.**

A 10

B 40

C 20

D 200

Understand It with Pulse | Flag a mistake

24 **A door is hard to push open near its hinges. Why?**

A the hinges push back harder

B the door is heavier near the hinges

C the handle is too far away

D the moment is small

Understand It with Pulse | Flag a mistake

25 **A component has a potential difference of 12 V across it and a current of 2 A through it. What is its resistance?**

A 6 ohms

B 3 ohms

C 24 ohms

D 12 ohms

Understand It with Pulse | Flag a mistake

26 **What happens to an electromagnet when the current is switched off?**

- **A** it attracts more strongly than before
- **B** it becomes a permanent magnet
- **C** it stays magnetic for ever after
- **D** it loses its magnetism

Understand It with Pulse | Flag a mistake

27 **A transformer has 200 turns on the primary coil and 50 turns on the secondary coil. What is the turns ratio?**

- **A** 3
- **B** 8
- **C** 5
- **D** 4

Understand It with Pulse | Flag a mistake

28 **How much energy is needed to heat 2 kg of a substance with a specific heat capacity of 4200 J per kg per degree Celsius by 10 degrees Celsius?**

- A 8400 J
- B 168000 J
- C 84000 J
- D 42000 J

Understand It with Pulse | Flag a mistake

29 **A spring has a spring constant of 10 N/m. It is stretched by 0.2 m. Calculate the force in N.**

- A 17
- B 2
- C 1
- D 4

Understand It with Pulse | Flag a mistake

30 **Photosynthesis produces oxygen at a rate of 5 cm cubed per minute. How much oxygen is produced in 10 minutes?**

- A 50 cm^3
- B 60 cm^3
- C 40 cm^3
- D 100 cm^3

Understand It with Pulse | Flag a mistake

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

- A a dead or weakened pathogen
- B white blood cells
- C an antibiotic
- D a live dangerous pathogen that causes disease

Understand It with Pulse | Flag a mistake

32 **A brown dog is bitten by a tick. Ticks can spread disease. How is the disease spread?**

A through water

B by touch

C by a vector

D through the air

Understand It with Pulse | Flag a mistake

33 **Rabbits in a population show different fur colours. What is this called?**

A variation

B selection

C mutation

D evolution

Understand It with Pulse | Flag a mistake

34 **What is antibiotic resistance?**

A people become allergic to antibiotics

B bacteria evolve to survive antibiotics

C bacteria are killed too slowly

D antibiotics stop working in cold weather

Understand It with Pulse | Flag a mistake

35 **A sandwich contains bread and cheese. Where does digestion begin?**

A in the stomach

B in the mouth

C in the large intestine

D in the small intestine

Understand It with Pulse | Flag a mistake

36 **Eggs contain protein. Which part of the egg is mostly protein?**

A the yolk

B the air sac

C the shell

D the white

Understand It with Pulse | Flag a mistake

37 **A school lunch tray holds a meal. Why do we need food?**

A to feel full after eating

B for energy and growth

C to stay awake at night

D for fun only, not for health

Understand It with Pulse | Flag a mistake

38 **A honeybee visits a flower to collect nectar. What does it carry between flowers?**

- A leaves
- B pollen
- C seeds
- D water

Understand It with Pulse | Flag a mistake

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

- A they conduct electricity
- B they do not conduct electricity at all
- C they dissolve in water
- D they are brittle

Understand It with Pulse | Flag a mistake

40 **Paintbrushes are used with paint. What is paint an example of?**

A a compound

B a pure substance

C an element

D a formulation

Understand It with Pulse | Flag a mistake

41 **A castle wall is made of stone. What type of rock is limestone?**

A sedimentary

B metamorphic

C volcanic

D igneous

Understand It with Pulse | Flag a mistake

42 **Silver coins are made of the element silver. What is the chemical symbol for silver?**

- **A** S
- **B** Si
- **C** Sv
- **D** Ag

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

44 **A thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A impossible to tell
- B above normal
- C exactly normal
- D below normal

Understand It with Pulse | Flag a mistake

45 **A river provides drinking water. Why must the water be treated before drinking?**

- A to add minerals for health
- B to make it taste better for drinking
- C to remove harmful substances
- D to heat it up for use

Understand It with Pulse | Flag a mistake

46 **A wristwatch is used to time a race. What is speed calculated from?**

- A distance and time
- B distance only, not time
- C time only, not distance
- D mass and time together

Understand It with Pulse | Flag a mistake

47 **A bicycle is ridden uphill. Which energy store increases?**

- A kinetic energy of motion
- B elastic potential energy
- C thermal energy from friction
- D gravitational potential

Understand It with Pulse | Flag a mistake

48 **A bicycle rolls down a hill. What happens to its gravitational potential energy?**

- A it becomes chemical energy stored in the bike
- B it decreases as kinetic energy increases
- C it stays the same
- D it increases

Understand It with Pulse | Flag a mistake

49 **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

50 **A set square is used to measure an angle of reflection. What is the angle of incidence equal to?**

A double the angle of reflection

B the angle of reflection

C half the angle of reflection

D zero

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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