ENGLAND GCSE PHYSICS OCR GATEWAY 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 **A cup of coffee is left for an hour. What happens to its temperature?**

- A it rises above room temperature
- B it stays the same all day
- C it falls to room temperature
- D it falls to zero degrees

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

3 **A calculator runs on a small current. What is current measured in?**

- A volts, the unit of voltage
- B amperes
- C watts, the unit of power
- D ohms, the unit of resistance

Understand It with Pulse | Flag a mistake

4 **A calculator is switched on. What does the battery transfer energy to?**

- A the case
- B the circuits
- C the buttons only
- D the screen only

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

6 **A sample has an activity of 3200 counts per minute. After 3 half-lives, what is its activity?**

- A 200
- B 400
- C 1600
- D 800

Understand It with Pulse | Flag a mistake

7 **A rocket launches straight up. Which force acts downwards on the rocket?**

A thrust

B gravity

C air resistance

D lift

Understand It with Pulse | Flag a mistake

8 **A passenger train carries people around the country. Which part of the blood is like the train, carrying oxygen around the body?**

A platelets

B white blood cells

C plasma

D red blood cells

Understand It with Pulse | Flag a mistake

9 **A hot air balloon is filled with hot air. Why does it rise?**

A hot air has no mass

B hot air is colder

C hot air is less dense

D hot air is heavier than cold air

Understand It with Pulse | Flag a mistake

10 **What is the weight of a 2 kg object on Earth? Use g = 10 N/kg.**

A 2 N

B 40 N

C 20 N

D 10 N

Understand It with Pulse | Flag a mistake

11 **What is the voltage of UK mains electricity?**

- A 110 V
- B 400 V
- C 12 V
- D 230 V

Understand It with Pulse | Flag a mistake

12 **What happens when a north pole and a south pole are brought together?**

- A nothing happens
- B they attract
- C they neutralise
- D they repel

Understand It with Pulse | Flag a mistake

13 **Which type of radiation is used in a TV remote control?**

A infrared

B X-rays

C gamma rays

D ultraviolet

Understand It with Pulse | Flag a mistake

14 **A Ferris wheel turns. What force keeps a person moving in a circle?**

A air resistance pushing them back

B friction only, gripping the seat

C gravity only, pulling them down

D centripetal force

Understand It with Pulse | Flag a mistake

15 **A device transfers 500 J of energy in 10 seconds. What is its power?**

- A 5000 W
- B 50 W
- C 25 W
- D 100 W

Understand It with Pulse | Flag a mistake

16 **A sailing ship uses the wind. What type of energy is wind?**

- A chemical energy
- B kinetic energy
- C potential energy
- D thermal energy

Understand It with Pulse | Flag a mistake

17 **Why does heating a gas in a sealed container raise the pressure?**

- A the container gets smaller
- B the particles stop moving
- C they hit the walls harder
- D the particles get bigger

Understand It with Pulse | Flag a mistake

18 **What is braking distance?**

- A the distance to the car ahead
- B the distance travelled while the driver reacts
- C the distance travelled while braking
- D the total stopping distance

Understand It with Pulse | Flag a mistake

19 **For a fixed resistor at constant temperature, what is the current-voltage characteristic?**

- A a flat line at zero current
- B a curve that flattens out
- C a straight line through zero
- D a curve that rises steeply then stops

Understand It with Pulse | Flag a mistake

20 **Do magnetic field lines ever cross each other?**

- A no, never
- B yes, at the poles
- C yes, in the middle
- D only in strong fields

Understand It with Pulse | Flag a mistake

21 **What does the frequency of a sound wave decide?**

A its colour

B its speed in air

C its loudness

D its pitch

Understand It with Pulse | Flag a mistake

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

A watts

B joules

C newtons, the unit of force

D kilograms

Understand It with Pulse | Flag a mistake

23 **A 5 kg object moves at 10 m/s. What is its kinetic energy?**

- **A** 500 J
- **B** 125 J
- **C** 250 J
- **D** 260 J

Understand It with Pulse | Flag a mistake

24 **Why does the National Grid use step-up transformers?**

- **A** to raise the current and cut the voltage
- **B** to change direct current to sound
- **C** to make more electricity
- **D** to raise the voltage and cut the current

Understand It with Pulse | Flag a mistake

25 **A 10 kg block has a specific heat capacity of 500 J/kg degrees Celsius. Its temperature rises by 20 degrees Celsius. How much energy is needed?**

A 50000 J

B 200000 J

C 100000 J

D 100500 J

Understand It with Pulse | Flag a mistake

26 **What is elastic potential energy?**

A energy of a hot object

B energy of movement

C stored stretch energy

D energy stored in a fuel

Understand It with Pulse | Flag a mistake

27 **A current of 5 A flows for 10 seconds. How much charge flows?**

- A 50 C
- B 25 C
- C 15 C
- D 100 C

Understand It with Pulse | Flag a mistake

28 **What does the right-hand grip rule tell you?**

- A field direction
- B the current size
- C the wire material
- D the wire length

Understand It with Pulse | Flag a mistake

29 **A wave has a frequency of 20 Hz and a wavelength of 3 m. What is its speed?**

- A 60 m/s
- B 30 m/s
- C 120 m/s
- D 23 m/s

Understand It with Pulse | Flag a mistake

30 **A passenger aeroplane cruises. Which force opposes its motion?**

- A thrust
- B weight
- C lift
- D drag

Understand It with Pulse | Flag a mistake

31 **A device has a power of 200 W. How much energy does it transfer in 10 seconds?**

- A 200 J
- B 2000 J
- C 20000 J
- D 20 J

Understand It with Pulse | Flag a mistake

32 **What is the Sun?**

- A a comet
- B a star
- C a moon
- D a planet

Understand It with Pulse | Flag a mistake

33 **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 the wrong colour for atoms

D marbles are too small to see properly

Understand It with Pulse | Flag a mistake

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

A it becomes zero

B it increases

C it stays the same

D it decreases

Understand It with Pulse | Flag a mistake

35 **A basketball bounces. What type of energy is stored when the ball squashes?**

A gravitational potential

B kinetic

C elastic potential

D thermal

Understand It with Pulse | Flag a mistake

36 **A basketball is thrown up. What happens to its speed as it rises?**

A it increases

B it stays the same

C it decreases

D it becomes zero

Understand It with Pulse | Flag a mistake

37 **A guitar string is tightened. What happens to the pitch?**

A it disappears

B it rises

C it falls

D it stays the same

Understand It with Pulse | Flag a mistake

38 **A Ferris wheel is at the top. What is the person's height like?**

A at its smallest

B at zero

C unchanged

D at its greatest

Understand It with Pulse | Flag a mistake

39 **A rocket is pushed up by hot gases. What is the upward force called?**

- A thrust
- B lift
- C weight
- D drag

Understand It with Pulse | Flag a mistake

40 **Fishing boats catch fish. What trophic level are the fish?**

- A consumers
- B plants
- C decomposers
- D producers

Understand It with Pulse | Flag a mistake

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

A it boils

B it evaporates

C it condenses

D it freezes

Understand It with Pulse | Flag a mistake

42 **A cardboard box sits on a floor. What is the force between the box and the floor?**

A the weight of the box

B the air pressure all around it

C the friction between the surfaces

D the upthrust from the floor

Understand It with Pulse | Flag a mistake

43 **A lamp runs at 24 V with a current of 3 A. What is its power?**

- A 144 W
- B 72 W
- C 82 W
- D 36 W

Understand It with Pulse | Flag a mistake

44 **A tennis ball bounces. What happens to its kinetic energy?**

- A it all stays kinetic energy
- B it becomes light energy
- C some becomes heat
- D it disappears completely

Understand It with Pulse | Flag a mistake

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

A S

B Ag

C Sv

D Si

Understand It with Pulse | Flag a mistake

46 **Which type of radiation is stopped by paper?**

A alpha

B neutron

C gamma

D beta

Understand It with Pulse | Flag a mistake

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

A an energy transfer

B a chemical change

C a reversible reaction

D a neutralisation

Understand It with Pulse | Flag a mistake

48 **Fishing boats use diesel. What is diesel made from?**

A crude oil

B wood, cut from trees

C water, from the sea

D coal, mined from the ground

Understand It with Pulse | Flag a mistake

49 **Why does a gas exert pressure on the walls of its container?**

- A gravity pulls the gas down
- B particles stick to the walls
- C the walls push the gas
- D particles hit the walls

Understand It with Pulse | Flag a mistake

50 **What force is needed to accelerate a 5 kg object at 3 m/s squared?**

- A 15 N
- B 20 N
- C 7.5 N
- D 30 N

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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