ENGLAND GCSE PHYSICS EDEXCEL 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 calculator uses a battery. What energy is stored in the battery?**

- A light energy from the Sun
- B kinetic energy of motion
- C thermal energy from heat
- D chemical energy

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

3 **A cup of coffee is left for an hour. What happens to its temperature?**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

5 **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

6 **Where does fusion happen naturally?**

- A in a power station
- B in the Sun
- C in the Moon
- D in the Earth

Understand It with Pulse | Flag a mistake

7 **A kite flies in the wind. Which force holds the kite up?**

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

Understand It with Pulse | Flag a mistake

8 **A mass of 10 kg moves at 5 m/s. Calculate its kinetic energy in J.**

- A 62.5
- B 375
- C 125
- D 250

Understand It with Pulse | Flag a mistake

9 **A force of 100 N acts on an area of 10 square metres. Calculate the pressure in pascals.**

- A 25
- B 10
- C 20
- D 5

Understand It with Pulse | Flag a mistake

10 **A device works at 6 V with a current of 3 A. What is its power?**

- A 9 W
- B 28 W
- C 18 W
- D 36 W

Understand It with Pulse | Flag a mistake

11 **How does a photocopier use static electricity?**

- A the drum is magnetic
- B the paper is heated by static
- C charged toner sticks to the drum
- D the toner is blown onto the paper

Understand It with Pulse | Flag a mistake

12 **What happens when two north poles are brought together?**

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

Understand It with Pulse | Flag a mistake

13 **What is the frequency of mains electricity in the UK?**

A 50 Hz

B 5 Hz

C 230 Hz

D 60 Hz

Understand It with Pulse | Flag a mistake

14 **What happens to the particles when a solid melts?**

A they get smaller

B they disappear

C they move more freely

D they stop moving altogether

Understand It with Pulse | Flag a mistake

15 **What is the limit of proportionality?**

- A the length of a spring with no force
- B the force needed to stretch a spring
- C the point where a spring breaks completely
- D the point where Hooke's law stops working

Understand It with Pulse | Flag a mistake

16 **Round 7.849 to 2 significant figures.**

- A 7.0
- B 7.85
- C 7.9
- D 7.8

Understand It with Pulse | Flag a mistake

17 **An object speeds up from 10 m/s to 40 m/s in 5 seconds. What is its acceleration?**

A 30 m/s²

B 6 m/s²

C 3 m/s²

D 12 m/s²

Understand It with Pulse | Flag a mistake

18 **What is kinetic energy?**

A energy of heat

B energy of movement

C energy of position

D energy of light

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

20 **What is total internal reflection used for?**

- A making sound louder
- B making mirrors
- C in optical fibres
- D heating water

Understand It with Pulse | Flag a mistake

21 **A sample has an activity of 3200 counts per minute. After 2 half-lives, what is its activity?**

- A 800
- B 3200
- C 400
- D 1600

Understand It with Pulse | Flag a mistake

22 **What fuel does a main sequence star fuse?**

- A helium, which is the product
- B oxygen
- C hydrogen
- D carbon

Understand It with Pulse | Flag a mistake

23 **A force of 10 N pushes a box 2 m along the ground. How much work is done?**

- **A** 20 J
- **B** 50 J
- **C** 10 J
- **D** 40 J

Understand It with Pulse | Flag a mistake

24 **A force of 100 N acts on an area of 5 square metres. What is the pressure?**

- **A** 40 Pa
- **B** 10 Pa
- **C** 20 Pa
- **D** 500 Pa

Understand It with Pulse | Flag a mistake

25 **Why does the resistance of a filament lamp increase as the current increases?**

- A the filament gets longer
- B the filament gets hotter
- C the filament melts away
- D the filament gets colder

Understand It with Pulse | Flag a mistake

26 **A current of 5 A flows for 20 s. How much charge flows, in C?**

- A 50
- B 100
- C 110
- D 200

Understand It with Pulse | Flag a mistake

27 **Which of these is a magnetic material?**

A aluminium

B wood

C iron

D copper

Understand It with Pulse | Flag a mistake

28 **A transformer has a primary voltage of 230 V. The number of turns on the secondary coil is 10 times smaller than on the primary coil. What is the secondary voltage?**

A 240 V

B 2300 V

C 23 V

D 46 V

Understand It with Pulse | Flag a mistake

29 **A 5 kg mass of ice melts. The specific latent heat of fusion of ice is 400 J/kg. How much energy is needed?**

- A 4000 J
- B 2000 J
- C 2100 J
- D 1000 J

Understand It with Pulse | Flag a mistake

30 **A spring has a spring constant of 100 N/m. It is stretched by 2 cm. What is the elastic potential energy stored?**

- A 0.04 J
- B 0.08 J
- C 0.01 J
- D 0.02 J

Understand It with Pulse | Flag a mistake

31 **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

32 **A bicycle has brakes. What do the brakes do to kinetic energy?**

- A destroy it
- B transfer it to heat
- C turn it into light and sound
- D store it

Understand It with Pulse | Flag a mistake

33 **A cheese pizza contains cheese made from milk. What is milk rich in?**

A fibre

B iron

C vitamin C

D calcium

Understand It with Pulse | Flag a mistake

34 **A passenger aeroplane takes off. Which force lifts it up?**

A drag

B lift

C weight

D thrust

Understand It with Pulse | Flag a mistake

35 **A set square measures angles. What is a right angle?**

A 45 degrees

B 90 degrees

C 180 degrees

D 360 degrees

Understand It with Pulse | Flag a mistake

36 **A sample has a half-life of 5 days. What percentage of the sample is left after 20 days?**

A 94%

B 3%

C 12%

D 6%

Understand It with Pulse | Flag a mistake

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

- A kinetic
- B thermal
- C elastic potential
- D gravitational potential

Understand It with Pulse | Flag a mistake

38 **A force of 10 N pushes a box 5 m along the ground. How much work is done?**

- A 50 J
- B 80 J
- C 100 J
- D 25 J

Understand It with Pulse | Flag a mistake

39 **A ladder is used to reach a roof. What is the ladder an example of?**

A a lever only

B a simple machine

C a power source

D a complex machine

Understand It with Pulse | Flag a mistake

40 **What colour is the live wire in a plug?**

A green and yellow

B red

C blue

D brown

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

42 **Which of these is NOT a magnetic material?**

- A nickel
- B iron
- C cobalt
- D copper

Understand It with Pulse | Flag a mistake

43 **A passenger train brakes. What force slows it down?**

- A thrust
- B friction
- C gravity, pulling it down
- D lift

Understand It with Pulse | Flag a mistake

44 **Why does a change of state need energy even though the temperature stays the same?**

- A the temperature is wrong
- B the particles need to slow down
- C energy is needed to break bonds
- D energy is destroyed in the change

Understand It with Pulse | Flag a mistake

45 **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

46 **Round 0.0472 to 2 significant figures.**

- **A** 0.047
- **B** 0.05
- **C** 0.0472
- **D** 0.048

Understand It with Pulse | Flag a mistake

47 **A kite is held by a string. What force does the string exert?**

- A tension
- B friction
- C gravity
- D air resistance

Understand It with Pulse | Flag a mistake

48 **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

49 **What is an echo?**

A a reflected sound wave

B a high pitched sound

C a loud sound

D a refracted sound wave

Understand It with Pulse | Flag a mistake

50 **An object 1 cm tall forms an image 5 cm tall. Calculate the magnification.**

A 4

B 10

C 5

D 6

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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