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

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

Understand It with Pulse | Flag a mistake

2 **A wooden footbridge carries people. What is the load on the bridge?**

- A the weight of the people
- B the water flowing under it
- C the wind blowing across it
- D the wood of the bridge itself

Understand It with Pulse | Flag a mistake

3 **Hardcover books are stacked on a table. What force pulls them down?**

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

A it decreases as kinetic energy increases

B it becomes chemical energy stored in the bike

C it stays the same

D it increases

Understand It with Pulse | Flag a mistake

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

A 0 N

B 5000 N

C 1000 N

D 10000 N

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

10 **An object speeds up from 5 m/s to 35 m/s in 5 seconds. What is its acceleration?**

- A 12 m/s^2
- B 3 m/s^2
- C 30 m/s^2
- D 6 m/s^2

Understand It with Pulse | Flag a mistake

11 **A device works at 230 V with a current of 5 A. What is its power?**

- A 1150 W
- B 575 W
- C 1160 W
- D 2300 W

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

13 **A Ferris wheel turns slowly. A person on the wheel moves in a circle. What is the person's speed like?**

A increasing speed

B zero speed

C decreasing speed

D steady speed

Understand It with Pulse | Flag a mistake

14 **A radioactive sample has an activity of 400 Bq. What is its activity after 2 half-lives?**

A 200 Bq

B 100 Bq

C 400 Bq

D 50 Bq

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

17 **A block has a mass of 1000 g and a volume of 500 cubic centimetres. What is its density?**

- A 1 g/cm³
- B 4 g/cm³
- C 5 g/cm³
- D 2 g/cm³

Understand It with Pulse | Flag a mistake

18 **A force of 400 N acts on an area of 10 square metres. What is the pressure?**

- A 40 Pa
- B 80 Pa
- C 4000 Pa
- D 20 Pa

Understand It with Pulse | Flag a mistake

19 **A small positive charge is placed in an electric field. Which way does the force on it point?**

A along the field lines

B at right angles to the field

C there is no force on it

D against the field lines

Understand It with Pulse | Flag a mistake

20 **A transformer has a primary voltage of 230 V. The secondary coil has 10 times fewer turns than the primary coil. What is the secondary voltage?**

A 240 V

B 46 V

C 23 V

D 2300 V

Understand It with Pulse | Flag a mistake

21 **A wave has a frequency of 4 Hz and a wavelength of 5 m. What is its speed?**

- A 20 m/s
- B 10 m/s
- C 40 m/s
- D 9 m/s

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

23 **What does it mean if an energy resource is renewable?**

- A it is cheap to build
- B it will not run out
- C it works in any weather
- D it makes no pollution at all

Understand It with Pulse | Flag a mistake

24 **What does red-shift from distant galaxies tell us about the Universe?**

- A it is getting smaller
- B it is shrinking
- C it is not changing
- D it is expanding

Understand It with Pulse | Flag a mistake

25 **An object has a mass of 40 g and a volume of 20 cubic centimetres. What is its density?**

A 60 g/cm³

B 4 g/cm³

C 1 g/cm³

D 2 g/cm³

Understand It with Pulse | Flag a mistake

26 **What is braking distance?**

A the total stopping distance

B the distance to the car ahead

C the distance travelled while the driver reacts

D the distance travelled while braking

Understand It with Pulse | Flag a mistake

27 **A current of 2 A flows for 30 seconds. How much charge flows?**

- A 120 C
- B 30 C
- C 32 C
- D 60 C

Understand It with Pulse | Flag a mistake

28 **How can the direction of a magnetic field be found?**

- A with a stopwatch
- B with a compass
- C with a ruler
- D with a thermometer

Understand It with Pulse | Flag a mistake

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

A in optical fibres

B heating water

C making mirrors

D making sound louder

Understand It with Pulse | Flag a mistake

30 **Why is alpha used in smoke alarms?**

A it has a long half-life

B it is not ionising

C it is stopped by smoke

D it is very penetrating

Understand It with Pulse | Flag a mistake

31 **A 4 kg object is lifted 4 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 80 J
- B 16 J
- C 160 J
- D 320 J

Understand It with Pulse | Flag a mistake

32 **What does a power station do?**

- A it makes water
- B it makes fuel
- C it generates electricity
- D it stores electricity for later use

Understand It with Pulse | Flag a mistake

33 **A 10 kg block has a specific heat capacity of 500 J/kg degrees Celsius. Its temperature rises by 5 degrees Celsius. How much energy is needed?**

- A 50000 J
- B 25500 J
- C 25000 J
- D 12500 J

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

A watts, the unit of power

B amperes

C volts, the unit of voltage

D ohms, the unit of resistance

Understand It with Pulse | Flag a mistake

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

A it falls

B it stays the same

C it disappears

D it rises

Understand It with Pulse | Flag a mistake

37 **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

38 **A sample has a half-life of 5 days. What percentage of the sample is left after 15 days?**

A 24%

B 6%

C 12%

D 88%

Understand It with Pulse | Flag a mistake

39 **A basketball is dropped. What energy store increases as it falls?**

A elastic

B kinetic

C thermal

D gravitational potential

Understand It with Pulse | Flag a mistake

40 **A red race car speeds up on a straight track. What is the resultant force doing?**

A causing deceleration

B causing acceleration

C doing nothing

D causing a turn

Understand It with Pulse | Flag a mistake

41 **An object has a mass of 50 g and a volume of 20 cubic centimetres. What is its density?**

- A 70 g/cm³
- B 1.25 g/cm³
- C 5 g/cm³
- D 2.5 g/cm³

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

43 **What is the same everywhere in a series circuit?**

- A the resistance
- B the current
- C the potential difference
- D the power

Understand It with Pulse | Flag a mistake

44 **An iron core is put inside a solenoid. What happens to the field?**

- A it stays the same
- B it gets weaker
- C it gets stronger
- D it disappears

Understand It with Pulse | Flag a mistake

45 **How is ultrasound used in medicine?**

A to make X-ray pictures of bones

B to cut skin

C to heat the body

D to see inside the body

Understand It with Pulse | Flag a mistake

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

A S

B Si

C Ag

D Sv

Understand It with Pulse | Flag a mistake

47 **A 5 kg object is lifted 5 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

- A 125 J
- B 250 J
- C 500 J
- D 25 J

Understand It with Pulse | Flag a mistake

48 **What is the Big Bang theory?**

- A the Universe has always been the same
- B the Universe is shrinking
- C it began hot, dense, expanding
- D the Earth exploded

Understand It with Pulse | Flag a mistake

49 **How much energy is needed to change 5 kg of a substance from solid to liquid, if the specific latent heat is 334000 J per kg?**

- A 334005 J
- B 835000 J
- C 1670000 J
- D 3340000 J

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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