ENGLAND GCSE PHYSICS 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 **Glass marbles in a tray are used as a model for particles in a solid. What do the marbles show?**

- A particles vibrate in fixed positions
- B particles move freely through space
- C particles flow past each other easily
- D particles are far apart from each other

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

- A thrust
- B air resistance
- C gravity
- D lift

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

A at its smallest

B at its greatest

C at zero

D unchanged

Understand It with Pulse | Flag a mistake

6 **Why is a short half-life source chosen for a medical tracer?**

A so it is cheaper to make

B it decays quickly

C so it can be reused

D so it stays in the body for years

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

8 **A force of 10 N pushes an object 3 m. Calculate the work done in J.**

- A 30
- B 60
- C 40
- D 15

Understand It with Pulse | Flag a mistake

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

- A the moment is small
- B the door is heavier near the hinges
- C the handle is too far away
- D the hinges push back harder

Understand It with Pulse | Flag a mistake

10 **A current of 4 A flows for 60 seconds. How much charge flows?**

- A 480 C
- B 240 C
- C 64 C
- D 120 C

Understand It with Pulse | Flag a mistake

11 **What happens when two objects with the same charge are brought together?**

- **A** they attract each other
- **B** nothing happens at all
- **C** they repel each other
- **D** they stick together

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

13 **A transformer has a primary voltage of 240 V. The number of turns on the secondary coil is 2 times smaller than on the primary coil. What is the secondary voltage?**

- A 120 V
- B 240 V
- C 250 V
- D 480 V

Understand It with Pulse | Flag a mistake

14 **How much energy is needed to heat 1 kg of a substance with a specific heat capacity of 4200 J per kg per degree Celsius by 20 degrees Celsius?**

- A 4200 J
- B 42000 J
- C 168000 J
- D 84000 J

Understand It with Pulse | Flag a mistake

15 **What is the limit of proportionality for a spring?**

A the point where the spring breaks

B force stops matching extension

C the point where the spring is longest

D the point where no force is needed

Understand It with Pulse | Flag a mistake

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

A they are heavy

B they are cold

C they have free electrons

D they are shiny and reflective

Understand It with Pulse | Flag a mistake

17 **An object speeds up from 0 m/s to 30 m/s in 10 seconds. What is its acceleration?**

A 3 m/s²

B 1.5 m/s²

C 30 m/s²

D 6 m/s²

Understand It with Pulse | Flag a mistake

18 **A 10 kg object is lifted 2 m. Use g = 10 N/kg. What is the gain in gravitational potential energy?**

A 400 J

B 100 J

C 20 J

D 200 J

Understand It with Pulse | Flag a mistake

19 **What does sound need to travel through?**

- **A** air only
- **B** a vacuum
- **C** a medium
- **D** water only

Understand It with Pulse | Flag a mistake

20 **What is the normal in a refraction question?**

- **A** at right angles to the surface
- **B** the ray of light itself, in the glass
- **C** the edge of the block
- **D** a line along the surface

Understand It with Pulse | Flag a mistake

21 **A sample has a half-life of 5 days. After 15 days, what fraction remains?**

- A 1/2
- B 1/8
- C 1/16
- D 1/4

Understand It with Pulse | Flag a mistake

22 **How long does a geostationary satellite take to orbit the Earth?**

- A 24 hours
- B 1 hour
- C 1 year
- D 1 month, about 30 days

Understand It with Pulse | Flag a mistake

23 **A motor lifts a load. Where does the energy go?**

- A it disappears into the wires
- B it is destroyed by the motor completely
- C it is created by the motor
- D to the load as potential energy

Understand It with Pulse | Flag a mistake

24 **A force of 25 N acts 2 m from a pivot. Calculate the moment in Nm.**

- A 25
- B 50
- C 100
- D 65

Understand It with Pulse | Flag a mistake

25 **A current of 5 A flows for 60 seconds. How much charge flows?**

- A 310 C
- B 300 C
- C 150 C
- D 600 C

Understand It with Pulse | Flag a mistake

26 **Which of these can become charged by rubbing?**

- A a steel nail, which is a metal
- B a copper wire, which conducts charge away
- C a plastic rod
- D a glass of water

Understand It with Pulse | Flag a mistake

27

What is an electromagnet?

A a piece of iron with no coil

B a permanent magnet made of steel

C a magnet that works without any current

D a magnet made by a current

Understand It with Pulse | Flag a mistake

28

How can more potential be induced in a coil?

A move the magnet slower, gently

B use fewer turns

C hold the magnet still

D move it faster, more turns

Understand It with Pulse | Flag a mistake

29 **What happens to gas pressure when the volume falls at fixed temperature?**

A it increases

B it stays the same

C it decreases

D it becomes zero

Understand It with Pulse | Flag a mistake

30 **A spring with spring constant 50 N/m is stretched by 0.2 m. Calculate the elastic potential energy stored in J.**

A 2

B 0.5

C 4

D 1

Understand It with Pulse | Flag a mistake

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

A watts, the unit of power

B volts, the unit of voltage

C ohms, the unit of resistance

D amperes

Understand It with Pulse | Flag a mistake

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

A it decreases

B it becomes zero

C it increases

D it stays the same

Understand It with Pulse | Flag a mistake

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

A thermal

B elastic

C gravitational potential

D kinetic

Understand It with Pulse | Flag a mistake

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

A the second

B the minute

C the day

D the hour

Understand It with Pulse | Flag a mistake

35 **An object 4 cm tall forms an image 12 cm tall. Calculate the magnification.**

- A 3
- B 2
- C 6
- D 4

Understand It with Pulse | Flag a mistake

36 **What does background radiation come from?**

- A the Sun only
- B rocks, air, space, medicine
- C power stations only, nowhere else
- D mobile phones only

Understand It with Pulse | Flag a mistake

37 **What keeps a satellite in orbit?**

A magnetism

B the air pushing it

C gravity

D its engines running all the time

Understand It with Pulse | Flag a mistake

38 **A force of 25 N pushes an object 5 m. Calculate the work done in J.**

A 135

B 250

C 62

D 125

Understand It with Pulse | Flag a mistake

39 **A force of 100 N acts on an area of 20 square metres. Calculate the pressure in pascals.**

A 10

B 5

C 2

D 20

Understand It with Pulse | Flag a mistake

40 **A guitar string vibrates to make a sound. What type of wave is the sound wave?**

A electromagnetic

B standing

C longitudinal

D transverse

Understand It with Pulse | Flag a mistake

41 **What happens to the field lines where two like charges are close?**

- A they form circles
- B they disappear
- C they push apart
- D they join together

Understand It with Pulse | Flag a mistake

42 **Which poles repel each other?**

- A north and south poles together
- B like poles
- C unlike poles, which attract each other
- D no poles repel each other at all

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

45 **A spring has a spring constant of 50 N/m. It is stretched by 0.2 m. Calculate the force in N.**

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

Understand It with Pulse | Flag a mistake

46 **What does a thermometer measure?**

- A length, in metres and centimetres
- B mass, in grams and kilograms
- C temperature
- D time, in seconds and minutes

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

48 **What is kinetic energy?**

- A energy of light
- B energy of position
- C energy of heat
- D energy of movement

Understand It with Pulse | Flag a mistake

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

- A 100 m/s
- B 25 m/s
- C 55 m/s
- D 50 m/s

Understand It with Pulse | Flag a mistake

50 **What are radio waves used for?**

- A killing cancer cells in treatment
- B television and radio
- C cooking food in a microwave oven
- D seeing inside the body in hospitals

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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