NOVA SCOTIA PHYSICS 11 · 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 **An object travels 100 metres in 5 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A net force of 20 newtons acts on a mass of 10 kilograms. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **An object of mass 2 kilograms is 10 metres above the ground . Use g = 10 metres per second squared . Its gravitational potential energy , in joules , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **An object of mass 2 kilograms and momentum 20 kilogram metres per second moves at speed, in metres per second, of**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A wave has wavelength 5 metres and speed 100 metres per second. Its frequency, in hertz, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A scalar quantity has magnitude but no**

A unit

B value

C direction

D sign

Understand It with Pulse | Flag a mistake

7 **A free body diagram shows**

A all objects in a room

B motion only

C energy only

D forces acting on one object

Understand It with Pulse | Flag a mistake

8 **A device that transforms energy from one form to another is a**

A transducer

B generator only

C motor only

D battery only

Understand It with Pulse | Flag a mistake

9 **A fast ball has more momentum than a slow ball of the same mass because momentum depends on**

A colour

B size only

C velocity

D temperature

Understand It with Pulse | Flag a mistake

10 **An echo is a reflected**

A light wave only

B sound wave

C water wave only

D radio wave only

Understand It with Pulse | Flag a mistake

11 **Average velocity equals displacement divided by**

A mass

B time

C force

D distance only

Understand It with Pulse | Flag a mistake

12 **Action and reaction forces act on**

A different objects

B the same object

C the ground only

D the air only

Understand It with Pulse | Flag a mistake

13 **A stretched spring stores**

A kinetic energy

B chemical energy

C thermal energy only

D elastic potential energy

Understand It with Pulse | Flag a mistake

14 **A rocket moves forward by expelling gas backwards, which is an example of momentum**

A creation

B loss

C transfer to heat only

D conservation

Understand It with Pulse | Flag a mistake

15 **Larger amplitude sound is perceived as**

A higher pitched

B lower pitched

C faster

D louder

Understand It with Pulse | Flag a mistake

16 **Deceleration is acceleration in the direction opposite to**

A gravity

B mass

C velocity

D distance

Understand It with Pulse | Flag a mistake

17 **Newton first law states that an object stays at rest or in uniform motion unless acted on by a**

A net force

B mass

C speed

D distance

Understand It with Pulse | Flag a mistake

18 **Efficiency is useful energy output divided by**

A time

B total energy input

C force

D mass

Understand It with Pulse | Flag a mistake

19 **An explosion in a closed system starts with total momentum zero, so the fragments move in**

- A the same direction
- B opposite directions
- C one direction only
- D no direction

Understand It with Pulse | Flag a mistake

20 **Refraction is the bending of a wave when it**

- A reflects off a mirror
- B changes speed entering a new medium
- C stops moving
- D doubles in frequency

Understand It with Pulse | Flag a mistake

21 **On a distance time graph the slope gives the**

A acceleration

B force

C speed

D mass

Understand It with Pulse | Flag a mistake

22 **A mass of 20 kilograms on Earth , where g = 10 metres per second squared , has weight , in newtons , of**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **An object of mass 5 kilograms is 4 metres above the ground . Use g = 10 metres per second squared . Its gravitational potential energy , in joules , is**

ANSWER _____

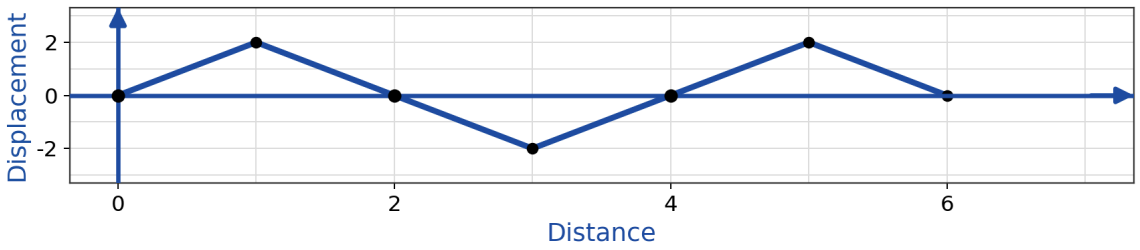
Understand It with Pulse | Flag a mistake

24 **In a closed system, total momentum before a collision equals total momentum**

- **A** before only
- **B** at rest only
- **C** after the collision
- **D** in one object

Understand It with Pulse | Flag a mistake

25 **The graph shows a wave repeating every 4 units of distance. The wavelength of the wave is**



- **A** 2
- **B** 8
- **C** 1
- **D** 4

Understand It with Pulse | Flag a mistake

26 **An object speeds up from 5 metres per second to 25 metres per second in 4 seconds. Its acceleration, in metres per second squared, is**

ANSWER

Understand It with Pulse | Flag a mistake

27 **A mass of 5 kilograms on Earth , where g = 10 metres per second squared , has weight , in newtons , of**

ANSWER

Understand It with Pulse | Flag a mistake

28 **A force of 18 newtons pushes an object 10 metres. The work done, in joules, is**

ANSWER

Understand It with Pulse | Flag a mistake

29 **An object of mass 5 kilograms and momentum 20 kilogram metres per second moves at speed, in metres per second, of**

ANSWER

Understand It with Pulse | Flag a mistake

30 **A wave has frequency 20 hertz and wavelength 3 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 **An object travels 360 metres in 12 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **A net force of 60 newtons acts on a mass of 12 kilograms. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **A force of 50 newtons pushes an object 4 metres. The work done, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **A force of 30 newtons acts for 2 seconds. The impulse, in newton seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **A wave has frequency 40 hertz. Its period, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **An object travels 180 metres in 9 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **A net force acts on a mass of 20 kilograms giving acceleration 4 metres per second squared. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **Work of 100 joules is done in 5 seconds. The power, in watts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **An object of mass 8 kilograms moves at 4 metres per second. Its momentum, in kilogram metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

40 **A wave has frequency 25 hertz and wavelength 2 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **Two objects travel the same distance and one takes less time. That object has the**

A greater average speed

B smaller average speed

C same speed

D zero speed

Understand It with Pulse | Flag a mistake

42 **The unit of force is the**

A newton

B joule

C watt

D pascal

Understand It with Pulse | Flag a mistake

43 **Power is the rate of doing**

A force

B motion

C heat only

D work

Understand It with Pulse | Flag a mistake

44 **Momentum is the product of mass and**

A velocity

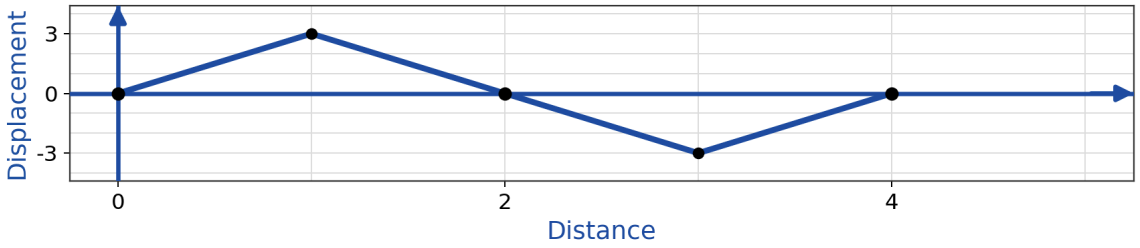
B acceleration

C force

D time

Understand It with Pulse | Flag a mistake

45 **The graph shows a wave with crests 3 units high. The amplitude of the wave is**



- **A** 6
- **B** 3
- **C** 1.5
- **D** 4

Understand It with Pulse | Flag a mistake

46 **An object travels 420 metres in 7 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

47 **A net force acts on a mass of 10 kilograms giving acceleration 7 metres per second squared. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **Work of 240 joules is done in 8 seconds. The power, in watts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **An object of mass 12 kilograms moves at 3 metres per second. Its momentum, in kilogram metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **A wave has frequency 200 hertz. Its period, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	20	**18.**	B	**35.**	0.025
2.	2	**19.**	B	**36.**	20
3.	200	**20.**	B	**37.**	80
4.	10	**21.**	C	**38.**	20
5.	20	**22.**	200	**39.**	32
6.	C	**23.**	200	**40.**	50
7.	D	**24.**	C	**41.**	A
8.	A	**25.**	D	**42.**	A
9.	C	**26.**	5	**43.**	D
10.	B	**27.**	50	**44.**	A
11.	B	**28.**	180	**45.**	B
12.	A	**29.**	4	**46.**	60
13.	D	**30.**	60	**47.**	70
14.	D	**31.**	30	**48.**	30
15.	D	**32.**	5	**49.**	36
16.	C	**33.**	200	**50.**	0.005
17.	A	**34.**	60		

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