FINAL EXAM - PRACTICE TEST | NEW BRUNSWICK PHYSICS 111-112 · 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 speeds up from 0 metres per second to 20 metres per second in 4 seconds. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A mass of 2 kilograms is 5 metres high , with g = 10 metres per second squared . Its gravitational potential energy , in joules , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A wave has frequency 10 hertz. Its period, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **An object in free fall near Earth accelerates at about**

A 9.8 metres per second squared

B 1 metre per second squared

C 20 metres per second squared

D 0 metres per second squared

Understand It with Pulse | Flag a mistake

6

Friction opposes

A gravity only

B mass

C speed only

D motion

Understand It with Pulse | Flag a mistake

7

A machine with 80 percent efficiency wastes

A 80 percent of input energy

B all input energy

C 20 percent of input energy

D no input energy

Understand It with Pulse | Flag a mistake

8 **Amplitude is the maximum displacement from the**

A crest only

B trough only

C rest position

D wavelength

Understand It with Pulse | Flag a mistake

9 **A vector quantity has both magnitude and**

A mass

B colour

C temperature

D direction

Understand It with Pulse | Flag a mistake

10 **Inertia is the tendency of an object to resist a change in its**

- A mass
- B colour
- C motion
- D temperature

Understand It with Pulse | Flag a mistake

11 **Efficiency compares useful output energy to**

- A time
- B total input energy
- C mass
- D force

Understand It with Pulse | Flag a mistake

12 **Higher frequency sound is perceived as a**

A higher pitch

B lower pitch

C louder sound

D softer sound

Understand It with Pulse | Flag a mistake

13 **An object travels 240 metres in 8 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **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

15 **Kinetic energy depends on mass and**

- A height only
- B speed²
- C time only
- D force only

Understand It with Pulse | Flag a mistake

16 **Period is the time for**

- A two waves
- B one complete wave
- C half a wave
- D a crest only

Understand It with Pulse | Flag a mistake

17 **An object travels 150 metres in 3 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A 4 kilogram mass is pulled by a 20 newton force against 8 newtons of friction. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **Work is done when a force causes**

A displacement in its direction

B mass only

C time only

D temperature change only

Understand It with Pulse | Flag a mistake

20 **A wave has frequency 20 hertz. Its period, in seconds, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **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

22 **A net force of 40 newtons acts on a mass of 8 kilograms. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A mass of 4 kilograms moves at 5 metres per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **An object speeds up from 0 metres per second to 24 metres per second in 8 seconds. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

26 **A net force of 50 newtons acts on a mass of 10 kilograms. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **An object speeds up from 20 metres per second to 40 metres per second in 5 seconds. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

30 **A net force acts on a mass of 8 kilograms giving acceleration 2.5 metres per second squared. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 **A force of 30 newtons pushes an object 6 metres in the direction of the force. The work done, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **A wave has frequency 10 hertz and wavelength 6 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **On a distance time graph the slope of the line gives the**

A acceleration

B speed

C force

D mass

Understand It with Pulse | Flag a mistake

34 **A net force of 90 newtons acts on a mass of 15 kilograms. Its acceleration, in metres per second squared, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **A force of 60 newtons pushes an object 5 metres in the direction of the force. The work done, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **A wave has frequency 4 hertz and wavelength 5 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **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

38 **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

39 **A mass of 6 kilograms moves at 3 metres per second. Its kinetic energy, in joules, is**

ANSWER

Understand It with Pulse | Flag a mistake

40 **Sound travels as a**

A transverse wave only

B surface wave only

C standing wave only

D longitudinal wave

Understand It with Pulse | Flag a mistake

41 **Use g = 9.8 metres per second squared . An object dropped from rest falls for 3 seconds . Its speed then , in metres per second , is**

ANSWER

Understand It with Pulse | Flag a mistake

42 **Static friction acts on an object that is**

- A not moving
- B moving fast
- C falling
- D floating

Understand It with Pulse | Flag a mistake

43 **A mass of 5 kilograms moves at 2 metres per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 **The speed of light in a vacuum is about**

A 343 metres per second

B 3×10^8 metres per second

C 1500 metres per second

D 300 metres per second

Understand It with Pulse | Flag a mistake

45 **An object travels 600 metres in 12 seconds at constant speed. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

46 **Weight is the force of gravity on a mass and depends on**

- A gravitational field strength
- B volume only
- C density only
- D temperature

Understand It with Pulse | Flag a mistake

47 **A mass of 2 kilograms moves at 6 metres per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **A wave has frequency 8 hertz and wavelength 6 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **Use g = 9.8 metres per second squared . An object dropped from rest falls for 5 seconds . The distance fallen , in metres , is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **A net force acts on a mass of 6 kilograms giving acceleration 6 metres per second squared. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	5	**18.**	12	**35.**	300
2.	20	**19.**	A	**36.**	20
3.	100	**20.**	0.05	**37.**	20
4.	0.1	**21.**	30	**38.**	70
5.	A	**22.**	5	**39.**	27
6.	D	**23.**	50	**40.**	D
7.	C	**24.**	0.02	**41.**	29.4
8.	C	**25.**	3	**42.**	A
9.	D	**26.**	5	**43.**	10
10.	C	**27.**	200	**44.**	B
11.	B	**28.**	0.025	**45.**	50
12.	A	**29.**	4	**46.**	A
13.	30	**30.**	20	**47.**	36
14.	200	**31.**	180	**48.**	48
15.	B	**32.**	60	**49.**	122.5
16.	B	**33.**	B	**50.**	36
17.	50	**34.**	6		

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