NOVA SCOTIA ADVANCED PHYSICS 11 · UNIT E

Simple Harmonic Motion, Waves, Light and Sound — Practice Test

Nova Scotia Advanced Physics 11 • 10 questions

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 **Shortening a vibrating string raises its frequency because wavelength**

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

Understand It with Pulse | Flag a mistake

2 **Simple harmonic motion acceleration is proportional to displacement and directed toward**

- A maximum displacement
- B the start
- C equilibrium
- D the end

Understand It with Pulse | Flag a mistake

3 **Snell's law relates angles of incidence and refraction through the**

- A speeds of sound
- B refractive indices
- C amplitudes
- D frequencies

Understand It with Pulse | Flag a mistake

4 **The Doppler effect changes observed frequency when source and observer have**

A relative motion

B relative mass

C different colours

D different temperatures

Understand It with Pulse | Flag a mistake

5 **The fundamental frequency of a string depends on tension and mass per unit**

A colour

B temperature only

C amplitude

D length

Understand It with Pulse | Flag a mistake

6 **The period of a mass on a spring depends on mass and the**

- A amplitude for ideal motion
- B gravity
- C colour
- D spring constant

Understand It with Pulse | Flag a mistake

7 **The period of a simple pendulum for small angles depends on length and**

- A gravity
- B mass
- C amplitude
- D bob colour

Understand It with Pulse | Flag a mistake

8 **The speed of sound in air increases with**

A pressure only at fixed temperature

B temperature

C humidity only

D altitude only

Understand It with Pulse | Flag a mistake

9 **Total internal reflection happens when light travels from a denser to a less dense medium at an angle above the**

A normal angle

B reflected angle

C critical angle

D zero angle

Understand It with Pulse | Flag a mistake

10 **Ultrasound has frequency above the range of human**

A sight

B touch

C hearing

D speech

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**5.**	D	**9.**	C
2.	C	**6.**	D	**10.**	C
3.	B	**7.**	A		
4.	A	**8.**	B		

© 2026 Brett Robbins. All Rights Reserved.