Forces and Force Vectors, Newtons Laws, Friction and Inclined Planes — Practice Test

Nova Scotia Advanced Physics 11 • 10 questions

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1 **An Atwood machine with unequal masses accelerates because the net force is the**

- A sum of weights
- B larger weight only
- C smaller weight only
- D difference in weights

Understand It with Pulse | Flag a mistake

2 **Centripetal force is not a new force type; it is the net force toward the**

A outside of a path

B start of motion

C centre of a circular path

D end of motion

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3 **Equilibrium means the net force is**

A maximum

B equal to weight

C zero

D equal to friction

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4 **Hooke's law states that extension is proportional to**

- A mass always
- B applied force within the elastic limit
- C time
- D temperature only

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5 **If mass doubles and net force stays constant, acceleration**

- A doubles
- B stays the same
- C quadruples
- D halves

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6 **If the applied force doubles and mass stays constant, acceleration**

A halves

B stays the same

C doubles

D quadruples

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7 **Kinetic friction depends mainly on the normal force and the**

A surfaces in contact

B speed always strongly

C area always strongly

D colour

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8 **On an inclined plane, the normal force is less than weight because weight is**

A fully perpendicular

B zero

C doubled

D partly parallel to the plane

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9 **The coefficient of friction is the ratio of friction force to**

A weight only

B normal force

C applied force

D mass

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10 **Two perpendicular forces of 3 newtons and 4 newtons give a resultant, in newtons, of**

A 7

B 1

C 5

D 12

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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