

Multiple Choice Questions

1 Newton's first law of motion is valid only in the absence of?

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| A. force | B. net force |
| C. friction | D. momentum |

2 Inertia depends upon?

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| A. force | B. net force |
| C. mass | D. velocity |

3

A boy jumps out of a moving bus. There is a danger for him to fall?

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| A. towards the moving bus | B. away from the bus |
| C. in the direction of motion | D. opposite to the direction of motion |

4 A string is stretched by two equal and opposite force 10 N each. The tension in the string is?

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| A. zero | B. 5N |
| C. 10 N | D. 20N |

5 The mass of a body ?

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| A. decreases when accelerated | B. increases when accelerated |
| C. decreases when moving with high velocity | D. none of the above |

6 Two bodies of masses m_1 and m_2 attached to the ends of an inextensible string passing over a frictionless pulley such that both move vertically. The acceleration of the bodies is ?

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| A. $\frac{[m_1 \times m_2]}{[m_1 + m_2]}g$ | B. $\frac{[m_1 - m_2]}{[m_1 + m_2]}g$ |
| C. $\frac{[m_1 + m_2]}{[m_1 \cdot m_2]}g$ | D. $\frac{[2m_1 m_2]}{[m_1 + m_2]}g$ |

7 Which of the following is the unit of momentum?

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|---------|---------------|
| A. Nm | B. kgm^{-1} |
| C. Ns | D. Ns^{-1} |

8 When horse pulls a cart, the action is on the ?

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| A. cart | B. earth |
| C. horse | D. earth and cart |

9 Which of the following material lowers friction when pushed between metal plates?

A. water
C. air

B. fine marble powder
D. oil

Correct answers

1. B
5. D
9. D

2. C
6. B

3. C
7. C

4. A
8. D

