

## Worksheet: Laws of Motion

Gujarat State Board · Class 11 · Physics · 5 questions · 13 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 13

**Q1.** Why is it harder to start a heavy box moving than to keep it moving? *[2 marks]*

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**Q2.** A 5 kg block is pulled by a 20 N horizontal force against 8 N friction. Find the acceleration. *[2 marks]*

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**Q3.** A 0.5 kg ball moving at 20 m/s is caught in 0.02 s. Find the average force. *[3 marks]*

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**Q4.** A block slides down a 30 degree incline with  $\mu_k = 0.2$ . Find its acceleration ( $g = 10 \text{ m/s}^2$ ). *[3 marks]*

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**Q5.** A 1200 kg car turns a radius-20 m curve at 15 m/s. Find the friction force needed. *[3 marks]*

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