

## Worksheet: Work, Energy and Power

Maharashtra State Board · Class 11 · Physics · 5 questions · 12 marks

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

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

Score: \_\_\_\_\_ / 12

**Q1.** A force  $F = (2i + 3j)$  N displaces a particle by  $d = (4i - j)$  m. Find the work done. [2 marks]

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**Q2.** A spring ( $k = 200$  N/m) is compressed by 5 cm. Find the energy stored. [2 marks]

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**Q3.** Can kinetic energy be negative? Can potential energy be negative? [2 marks]

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**Q4.** A 1000 kg car accelerates from rest to 20 m/s in 10 s. Find the average power. [3 marks]

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**Q5.** In an elastic collision a 2 kg ball at 4 m/s hits a 4 kg ball at rest. Find the final velocities. [3 marks]

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