# WORK, ENERGY AND POWER

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**General Instructions:** Answer all the questions.  If you are unable to answer any question, go through the page number that is given against that particular question in the text book. You can find the answer.
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Test Paper-IV

**MAX MARKS: 20**                                                                              **TIME: 60Mts**

1    Define the following                                                                                P129    3

      a.   Elastic collision

      b.   Completely inelastic collision

      c.   Inelastic collision.

2    Discuss the collision in one dimension                                           P129    3

3    Discuss the collision in two dimensions                                        P129    3

4    Give the differences between elastic collision and inelastic collision.    P129    2

5    What is meant by Head on collision?                                            P130    1

6                                **Match the following**                                   P133    3

         GROUP-A                                                  GROUP-B

1.   Work                                              a.   $K = \frac{1}{2}mv^2$
2.   Kinetic energy                            b.   $P = F.v$
3.   Spring Constant                         c.   $E = K + V$
4.   Power                                           d.   $F = -kx$
5.   Mechanical energy                     e.   $V = mgh$
6.   Potential energy                         f.   $W = F.d$

7                                **Match the following**                                   P133    2

         GROUP-A                                                  GROUP-B

1.   Work                                              a.   $[MT^{-2}]$
2.   Potential energy                         b.   $[ML^2T^{-2}]$
3.   Spring Constant                         c.   $[ML^2T^{-2}]$
4.   Power                                           d.   $[ML^2T^{-2}]$

| 8 | Convert 1KWH into joules | P128 | 2 |
| 9 | What is the difference between the mass defect of a nuclear reaction with that of a chemical reaction? | P127 | 1 |