

Board – ICSE

Class – 7<sup>th</sup>

Topic – Energy

1. State the energy changes that occur in the following:
  - (i) The unwinding of a watch spring.
  - (ii) Burning coal while operating a steam engine.
  - (iii) Lighting of a torch bulb.
  - (iv) An electric generator (or dynamo).
2. Give one example of a body that has potential energy, in each of the following :
  - (i) Due to its position,
  - (ii) Due to its state.
3. Two bodies A and B of masses 10 kg and 20 kg respectively are at the same height above the ground. Which of the two has the greater potential energy?
4. Define the term kinetic energy. Give one example of a body which possesses kinetic energy.
5. State two factors on which the potential energy of a body at a certain height above the ground depends.
6. What do you mean by conservation of mechanical energy? State the condition when does it hold.
7. State the changes in form of energy while producing hydroelectricity.
8. Can a body possess energy even when it is not in motion? Explain your answer with an example.
9. A cyclist doubles his speed. How will his kinetic energy change: increase, decrease or remain same?
10. State the unit of energy and define it.
11. What is potential energy? State its unit.
12. Energy can exist in several forms and may change from one form to another. Give two examples to show the conversion of energy from one form to another.
13. Name the form of energy which a wound up watch spring possess.
14. Give one example to show the conversion of potential energy to kinetic energy when put in use.
15. Two toy-cars A and B of masses 500 g and 200 g respectively are moving with the same speed. Which of the two has the greater kinetic energy