

Q Define the term 'work input' and 'work output' in relation to a machine.

The work that is done on a machine is called work input. The work done by the machine on an object is called work output.

Q Explain the term mechanical advantage of a machine.

Mechanical advantage of a machine is defined as the ratio of load to the effort.

Q Define the term efficiency of a machine.

Ans The efficiency of a machine is the ratio of the useful work done by the machine to the work put into the machine by the effort.

(7) (10) What is an ideal machine?

Ans A machine in which no part of the ~~world~~ work done on the machine is wasted is called an ideal.

(10) (11) Can a machine have an efficiency of 100%? Give a reason to support your answer.

Ans No, Efficiency of a machine is always less than 100% as output energy is always less than the input energy because some energy is lost to overcome friction.

(12) 'A machine is 75% efficient'. What do you understand by this statement?

Ans If a machine is 75% efficient it means that 75% of the work input to the machine is obtained as the useful work ~~is~~ output.