MACHINE

1. Define machine.
2. What are the types of machines you learned?
3. Define each type of machine you mentioned above.
4. Define:
    a. Mechanical advantage (M.A) of machines.
    b. Velocity ratio (V.R) of a machine.
    c. Efficiency of machines.
    d. Useful work done.
    e. Wasted work done.
5. Calculate the efficiency of a machine if 8 000 J of work is done on the machine to lift a mass of 120 kg through a vertical height of 5 m.
6. An effort of 250 N raises a load of 900 N through 5 m in a machine. If the effort moves through 25 m, find
    a. the useful work done in raising the load.
    b. the work done by the effort.
    c. the efficiency of the machine.
7. A machine whose velocity ratio is 8 is used to lift a load of 300 N. The effort required is 60 N.
    a. What is the mechanical advantage of the machine?
    b. Calculate the efficiency of the machine.