How many of these questions can you answer if given needed equations?

1) Units used to measure "work" in the metric system are   *a*) kgm/s^2.   *b*) Joules.   *c*) Newtons.   *d*) Watts.

2) The work done while moving a 75 N suitcase a distance of 3 m is   *a*) 25 J.   *b*) 225 J.   *c*) 25 N.   *d*) 225 N.

3) Calculate the power that was exerted in the above question if the suitcase was moved in 10 seconds.

4) How much work is done while lifting a 12.5 kg rock a distance 2 meters off the ground?

5) Which term is a unit of power?   *a*) Joule   *b*) Newton   *c*) Watt   *d*) kgm/s^2

6) A 880 N firefighter with 395 N of clothing and equipment climbs straight up a 12 m ladder.

   a) How much work must be done by the person to climb the ladder?

   b) If firefighter climbed the ladder in 14 seconds, how much power was exerted?

7) The same units used in measuring energy are also used to measure

   a) power.   *b*) weight.   *c*) work.   *d*) force.

8) A rocket is shot upward from the earth's surface. <u>While</u> <u>the</u> <u>rocket</u> <u>is</u> <u>rising</u>, its (gravitational) potential

   energy will   *a*) increase.   *b*) decrease.   *c*) remain the same.

9) A 3 kg flower pot resting on the edge of a window that is 6 m above the ground?

   a) What is the potential energy (PE) of this pot?

   b) According to the law of conservation of energy, what would be the velocity of the flower pot just before

      it strikes the ground?

10) A 3,000 kg truck is moving at 14 m/s. According to the "work- energy theorem" how much work must be

    done to stop this truck?

11) A 113 kg football player is carrying a 0.5 kg football with a velocity of 6.5 m/s. According to the "work-

    energy theorem," how much work must be done to stop this person?