



Nafiyad School Sample Question For Grade 9/ physics

I. Write 'True' if the statement is correct 'False' if the statement is incorrect

- _____ 1. All energy are found in one form.
- _____ 2. Machine can create extra energy.
- _____ 3. If the MA of any simple machine is greater than one the machine is called speed multiplier
- _____ 4. If the larger force is acts on the smaller area it creates greater pressure.
- _____ 5. As altitude increase atmospheric pressure & the boiling point of water is decrease.
- _____ 6. The density of gas substance is greater than the density of liquid substance.

II. Choose the best answer

- _____ 1. What is the energy stored in a spring when it is compressed 5cm by a 60N force? A. 7.5J B. 15J C. 75J D. 1.5J
- _____ 2. What is the work done if the boulder of mass 100kg is rolled 40m up a slope at angle of 30° . Assume force of friction is negligible.
- A. 2000J B. 20,000J C. 200J D. 4000J
- _____ 3. A car to travel at 15m/s against a force of 6000N. What is the power from its engine needs? A. 9000w B. 200w C. 90,000w D. 90w
- _____ 4. The work done in J by the 10kw heater running for 15minutes is _____
- A. 900J B. 9,000,000J C. 9000J D. 90,000J
- _____ 5. A simple machine is able to move a 400N/Load distance of 0.2m when a force of 20N is moved trough a distance of 5m. What is the work out put

input respectively?

- A. 100J&80J B. 40J&20,000J C. 80J&100J D. 80J

_____6. Which one of the ff is 3rd class level arrangement

- A. Fulcrum is b/n load & effect C. Effort is b/n load & fulcrum
B. Load is b/n fulcrum & effect D. Fulcrum is b/n effort & load

_____7. If the efficiency of the simple machine is 0.25. What is the work out put if

2800J of work is goes in to the machine?

- A. 480J B. 700J C.2800J D. 120J

_____8. A differential pulley with a radii, $r=5\text{cm}$ & $R=10\text{cm}$ are fastened together &

turn on the same axle, what is VR of the machine

- A. 40 B. 400 C. 1200 D. 20

_____9. A woman weight 200N & wears shoes that touch the ground over an area of

400cm^2 . What is the pressure she exerts on the ground when she stand on

one foot? A.10kpa B. 10,000pa C. 20,000pa D. A&B

_____10. If the mercury barometer reading is 900mm Hg? What is the atmospheric

pressure at that level in pa?

- A. 119605.26pa B. 110100pa C. 1196056pa D. 101000pa

_____11. If the relative density of substance is $\frac{1}{4}^{\text{th}}$ of density of water what is the

density of substance? A. 500kg/m^3 B. 2000kg/m^3 C. 250kg/m^3 D. 1000kg/m^3

III. Work out show the necessary step

1. Two piston are connected together to make a hydraulic lift. The smaller piston has

an area of 0.06m^2 & the larger piston has an area of 2m^2 . Calculate the ff

a. The pressure in the fluid & the force at the larger piston is 40N

- b. The pressure in the fluid and the force from the smaller piston required to lift a car of mass 2000kg.
2. Calculate the pressure caused by water when diving to a depth of 50m. What is the total pressure acting on the diver?

Good Luck !