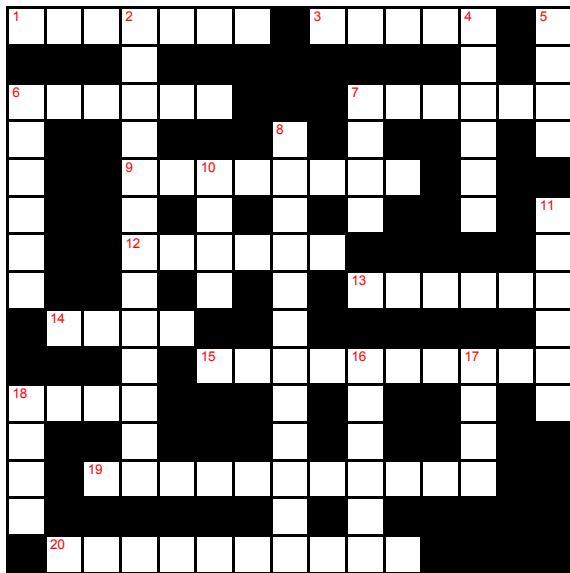


Mechanics _15x15_ 2008-10-11

B.B. Huria



Across

- 1 Force of attraction between all masses in the universe (7)
- 3 The unit of work in S.I. system (5)
- 6 Of or relating to a directionless magnitude (6)
- 7 Force that produces strain on a physical body (6)
- 9 When a rigid body is suspended vertically, and it oscillates with a small amplitude under the action of gravity, the body is known as _____ pendulum (8)
- 12 The act of applying force to propel something (6)
- 13 A unit of force equal to the force that imparts an acceleration of 1 m/sec/sec to a mass of 1 kilogram; equal

to 100,000 dynes (6)

- 14 Acceleration of the particle moving with simple harmonic motion is _____ at the mean position (4)
- 15 A machine having an efficiency greater than 50% (10)
- 18 A unit of power equal to 1 joule per second (4)
- 19 A constant number that serves as a measure of some property or characteristic (11)
- 20 The side of a right triangle opposite the right angle (10)

Down

- 2 Ratio of the distance moved by the point of force to the distance moved by the load in a simple machine (8,5)

4 Capacity of a physical system to do work (6)

5 Property of a body that causes it to have weight (4)

6 Deformation of a physical body under the action of applied forces (6)

7 Ratio of the opposite side to the hypotenuse (4)

8 The principle of _____ of momentum states that the total momentum of a system of moving bodies in any one direction remains constant, unless acted upon by an external force (12)

10 Angle of inclination with the vertical is _____ when the cyclist is running at a faster speed (4)

11 All the steel trusses of the bridges have one

of their ends roller supported whereas the other end is _____. This ensures stability of the trusses (6)

16 The amplitude is always equal to the _____ of the circle (6)

17 A single pulsation of an oscillation produced by adding two waves of different frequencies; has a frequency equal to the difference between the two oscillations (4)

18 Whenever a force acts on a body and the body undergoes a displacement, the _____ is said to be done (4)