



PT. DARMA BANGSA EDUKASI  
**SMP DARMA BANGSA BANDAR LAMPUNG**

Jl. Zainal Abidin Pagar Alam No. 93A Labuhan Ratu Bandar Lampung 35142  
Phone (0721) 700931 – 771556, e-mail : [official@darmabangsa.sch.id](mailto:official@darmabangsa.sch.id)

**FINAL EXIMINATION SEMSTER 1**  
**SMP DARMA BANGSA BANDAR LAMPUNG**  
**ACADEMIC YEAR 2021/2022**

---

Mata Pelajaran / Subject Matter	: Physics
Kelas / Class	: VIII
Semester	: 1
Hari & Tgl. Pelaksanaan / Date	: December 6 <sup>th</sup> , 2021
Name	:

---

**A. Multiple choice**

**Choose the correct answer of the following questions**

- What is the unit of measure for force?
  - Ampere
  - Newton
  - Seconds
  - Joule
- Newton's first Law of Motion states that if there is no net force acting on an object it will:
  - remain at rest
  - have no acceleration
  - move with constant velocity
  - all of the above
- What does Newton's Second Law of Motion state?
  - $a = m.F$
  - $F = m.a$
  - $F = \frac{m}{a}$
  - $m = F.a$
- How much net force is required to accelerate a 2000 kg car at 3.00 m/s<sup>2</sup>?
  - 2000 N
  - 6000 N
  - 4000 N
  - 8000 N
- If you apply a net force of 3 N on 0,1 kg -box, what is the acceleration of the box?
  - 5 m/s<sup>2</sup>
  - 20 m/s<sup>2</sup>
  - 10 m/s<sup>2</sup>
  - 30 m/s<sup>2</sup>
- Which of the following is contact force?
  - Electrical force
  - Friction
  - Magnetic force
  - Gravitational Force
- Which of the following are the effects of force, *except*?
  - to change the direction
  - to move a rest object
  - to stop a moving object
  - to change the color of flower

This options for Questions no 9 - 12

A. Lever (tuas)

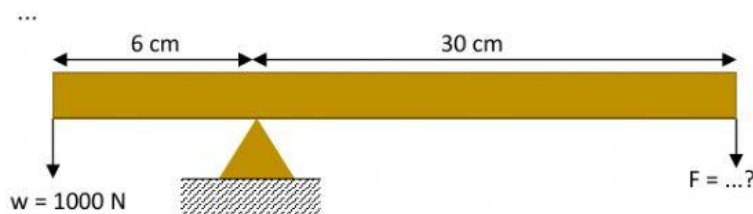
B. Pulley (katrol)

C. Wheel & Axle

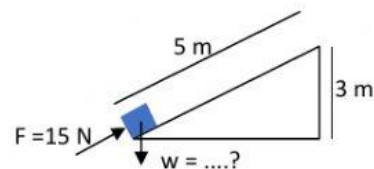
D. Inclined Plane

E. Wedge

8. These two parts act as one simple machine. They roll and are found on cars, bikes and wheelbarrows.  A  B  C  D  E
9. This simple machine can be used to lift a weight. It has a fulcrum, or pivot point, which can be located in the centre, near the end or at the end.  A  B  C  D  E
10. It is a type of simple machine that uses a wheel with a groove in it and a rope. The rope fits into the groove and one end of the rope goes around the load. You pull on the other end.  A  B  C  D  E
11. This simple machine is a flat surface with one end higher than the other. This allows for heavy objects to slide up to a higher point rather than be lifted. It is generally easier to slide something than to lift it..  A  B  C  D  E
12. To make the lever on the figure below in equilibrium condition, the value of force F is

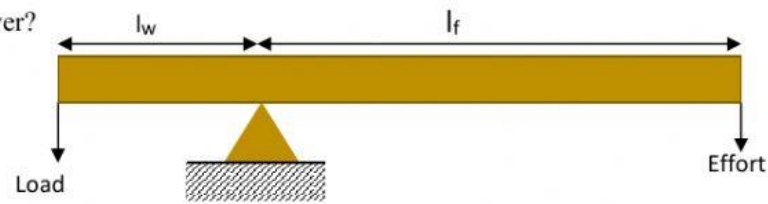


- a. 200 N
- b. 500 N
- c. 3000 N
- d. 9000 N
13. Look the figure below. An object is pushed by force of 15 N to rise 3 m high. The weight of the object is ...



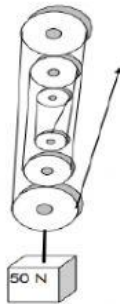
- a. 100 N
- b. 75 N
- c. 50 N
- d. 25 N

14. What should you do to reduce the amount of effort needed to lift something using a first class lever?



- move the fulcrum to the middle of the lever
  - move the fulcrum closer to the load
  - move the fulcrum closer to the effort
15. Among the following which pulley has the greatest the Mechanical Advantage?

a.



b.



c.

