

Sub: Physics Assignment-2

The force acting on a unit area of a surface is called pressure.

Pressure = Force / Area

S.I. Unit of Pressure is Newton/ square meter , also known as Pascal (Pa)

The smaller the area, larger the pressure on a surface for the same force. This is why tools meant for cutting and piercing always have sharp edges.

By increasing the area we can also reduce the pressure on a surface for the same applied force. This is why shoulder bags are provided with broad straps.

Answer the following questions:

1. Define pressure.
2. What is the mathematical formula used for calculating pressure?
3. What is the SI unit of pressure?
4. If 100 Newton force acts on a surface of area 1000 square centimeters , calculate the pressure on the surface in Pascal.
5. Why are shoulder bags provided with broad straps?
6. Which one is easier to cut vegetables with , a blunt knife or a sharp knife? Why?
7. Why do porters place a round piece of cloth on their heads , when they have to carry heavy loads?
8. Why do the tools meant for cutting and piercing always have sharp edges?