W
4/9/21 (2) depth = 2m

Density of water = 1000kg/m³

Pressure due to water = ρgh

→ 1000 × 10 × 2

→ 20000 Pa

(2) area of cross section

→ 6 × 10⁻³ m²

Weight it supports - 60kg

Pressure = Force / Area

→ Force = mass × acceleration

→ Pressure = ma / A (here a = acceleration due to gravity = g)

→ P. mg / A = 60 × 10 / 6 × 10⁻³

→ P. 600 / 6/1000

→ P = 100 600 × 1000/6 = 100000 Pa

3) a) The water will blow to inward direction from A to B when the valve is removed inorder to occupy the space that will be remaining after removing the valve & to make the level of A & B equal

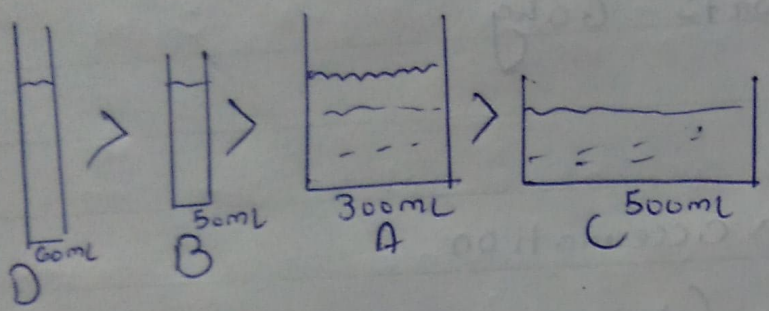
b) The water travels the longest distance in the 'D' hole because the liquid pressure is maximum at the bottom

— x —

(9) a) lower than

(6) (c) color of liquid

(8)



— x —

(1) a) 3200 Pa

(2) a) 10,000 N

(3) 2000 cm^2

—x—

(1) 3) remain unchanged if $P < P_0$

(2) (4) Statement 1 is false, Statement 2 is true

(0) (3) Statement 1 is true, Statement 1 is false