

NEET MECHANICAL PROPERTIES OF FLUIDS — CAPILLARY RISE — PYQS

Max. Marks: 12
Questions: 3

Section A (MCQ) — 3 questions

- Q.1** A capillary tube of radius r is immersed in water and water rises in it to a height h . The mass of the water in the capillary is 5 g. Another capillary tube of radius $2r$ is immersed in water. The mass of water that will rise in this tube is :

[NEET (UG) 2020]

- (1) 5.0 g (2) 10.0 g (3) 20.0 g (4) 2.5 g

Scan or tap for the full solution



- Q.2** Three liquids of densities ρ_1 , ρ_2 and ρ_3 (with $\rho_1 > \rho_2 > \rho_3$), having the same value of surface tension T , rise to the same height in three identical capillaries. The angles of contact θ_1 , θ_2 and θ_3 obey

[NEET 2016 (Phase 2)]

- (1) $\frac{\pi}{2} > \theta_1 > \theta_2 > \theta_3 \geq 0$
 (2) $0 \leq \theta_1 < \theta_2 < \theta_3 < \frac{\pi}{2}$
 (3) $\frac{\pi}{2} < \theta_1 < \theta_2 < \theta_3 < \pi$
 (4) $\pi > \theta_1 > \theta_2 > \theta_3 > \frac{\pi}{2}$

Scan or tap for the full solution



- Q.3** Water rises to a height h in capillary tube. If the length of capillary tube above the surface of water is made less than h , then

[AIPMT 2015]

- (1) water rises up to a point a little below the top and stays there.
 (2) water does not rise at all.
 (3) water rises up to the tip of capillary tube and then starts overflowing like a fountain.
 (4) water rises up to the top of capillary tube and stays there without overflowing.

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3										
Ans.	2	2	4										