Worksheet: Mechanical Properties of Fluids

Rajasthan State Board · Class 11 · Physics · 5 questions · 13 marks

Name: _____	Date: _____	Score: _____ / 13

Q1. Find the pressure at the bottom of a 10 m water tank (rho = 1000, P0 = 1e5 Pa, g = 10). *[2 marks]*

Q2. Water rises 5 cm in a capillary. If the radius is halved, what is the new rise? *[2 marks]*

Q3. A hydraulic lift has piston areas 10 cm^2 and 500 cm^2. Find the force on the small piston to lift 2000 kg. *[3 marks]*

Q4. An object weighs 50 N in air and 30 N in water. Find its volume and density. *[3 marks]*

Q5. A 1 mm sphere (rho = 5000) falls through water (rho = 1000, eta = 0.001 Pa s, g = 10). Find terminal velocity. *[3 marks]*