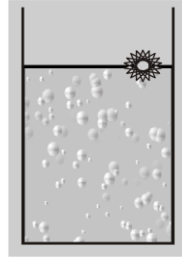
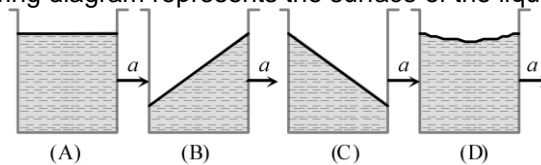


Self Practice Paper (SPP)

1. A body floats in liquid contained in a beaker. If the whole system (shown in fig.) falls under gravity then the up-thrust on the body is-



- (1) 2 mg (2) zero (3) mg (4) less than mg
2. A vessel containing water is given a constant acceleration a towards the right, along a straight horizontal path. Which of the following diagram represents the surface of the liquid



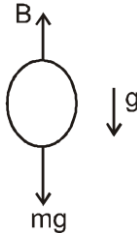
- (1) A (2) B (3) C (4) D

SPP Answers

1. (2) 2. (3)

SPP Solutions

1. Equation of motion $mg - B = mg \Rightarrow B = 0$



2. Due to acceleration in forward direction, vessel is an accelerated frame therefore a Pseudo force will be exerted in backward direction. Therefore water will be displaced in backward direction.