4 An ice cube of density ρ_{ice} made by freezing pure water of density ρ_{water} is floating in a beaker filled with a salt solution of density ρ_{salt}. If the ice cube completely melts, the level of the water in the beaker rises.

What is the reason for the rise in the water level?

A $\rho_{water} > \rho_{ice}$

B $\rho_{salt} > \rho_{ice}$

C $\rho_{salt} > \rho_{water}$

D $\rho_{water} < \rho_{ice}$

[Turn over