2-4 Let the tension in the vertical string = F, the tension in the horizontal string (the unknown quantity) = T, and the tension in the inclined string = S.

$F - mg = 0$ gives us F= 2 [kg] × 9.8 [m/s^2] = 19.6 N.

Taking vertical force components on the three strings, S sin 60˚ - F = 0.

So S = F/(sin 60˚) = 22.6N.

Taking horizontal force components on the three strings S cos 60˚ -T = 0

So T = 22.6 [N] × 0.5 = 11.3 [N]. The correct answer is (C).