



SACRED HEART SCHOOL

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ASSIGNMENT (2020– 2021)

Class -I X

Subject – PHYSICS

Assignment questions based upon online class

1. Which would require a greater force:
 - i. Accelerating a 2 kg mass at 5 ms^{-2} .
 - ii. Accelerating a 4 kg mass at 2 ms^{-2} .
2. A bike is moving with a velocity of 54 km/h and it takes 2s to stop after the brakes are applied. Calculate the force exerted by the brakes on the bike if its mass along with rider is 150 kg.
3. A force of 5 N gives a mass m_1 and acceleration of 10 ms^{-2} and a mass m_2 , an acceleration of 20 ms^{-2} . what acceleration would it give if both the masses were tied together?