# PHYSICS

# AAKASH INSTITUTE ENGLISH

# TEST2

**Exercise**

**1.** A Diwali cracker of mass 60 g at rest, explodes into three pieces A, B and C of mass 10 g, 20 g and 30 g respectively. After

explosion velocities of A and B are 30 m/s along east and 20 m/s along north respectively. The instantaneous velocity of C will be

A. A. $\dfrac{50}{3}$ m/s, 53° South of West

B. B. $\dfrac{20}{3}$ m/s, 53° South of Eest

C. C. $\dfrac{20}{3}$ m/s, 37° South of West

D. D. $\dfrac{50}{3}$ m/s, 37° South of Eest

**Answer:**

▶ Watch Video Solution

**2.** A particle of mass 'm' is moving on a circular path of radius 'r' with uniform speed 'v'. Rate of change of linear momentum is

A. A. Proportional to radius 'r'

B. B. Proportional to $v^2$

C. C. Zero

D. D. Independent of speed

Answer: B