QUES 03:-

. Velocity of three particles A, B and C varies with time t as, $\vec{v}_A = (2t\hat{i} + 6\hat{j})$ m/s; $\vec{v}_B = (3\hat{i} + 4\hat{j})$ m/s and $\vec{v}_C = (6\hat{i} - 4t\hat{j})$ m/s. Regarding the pseudo force match the following table

	Column I		Column II
(A)	On A as observed by B	(P)	Along positive x–direction
(B)	On B as observed by C	(Q)	Along negative x–direction
(C)	On A as observed by C	(R)	Along positive y–direction
(D)	On C as observed by A	(S)	Along negative y–direction
		(T)	Zero

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Concept of Pseudo Force

Solution :→ [A] $a_A = \frac{d(v_A)}{dt} = 2\hat{i}$

$a_B = 0$

$a_C = -4\hat{j}$

To find force on A when seen from B.

Pseudo force (on A obs. from B) $= m_A(-a_B)$

$= m_A(0)$

$= 0$

[do other part similarly]

Answers :→ A → T

B → R

C → R

D → Q