

A particle stays at rest as seen in a frame. We can conclude that

This question has multiple correct options

A The frame is inertial

B Resultant force on the particle is zero

C If the frame may be inertial then the resultant force on the particle is zero

D If the frame is noninertial then there is a nonzero resultant force.

Correct options are C) and D)

The particle may be both in an inertial frame or non-inertial frame depending on the observer.

In case of inertial frame of reference, the particle can be observed at rest only if the net resultant force on it is zero. Hence, option C is correct.

If the frame is non-inertial, then also the particle can be observed at rest if the magnitude of the acceleration of the particle will be same as that of the frame of reference and in this case the resultant force on the particle will be non-zero.

Thus option D is also correct.

Now, considering both the cases, we can conclude that the correct options will be both [C] and [D]