

Question

A reference frame attached to earth:

This question has multiple correct options

A is an inertial frame by definition

B cannot be an inertial frame because the earth is revolving around the sun

C is an inertial frame because Newtons laws are applicable in this frame

D cannot be an inertial frame because the earth is rotating about its own axis

Solution

Correct options are B) and D)

Earth can not be a inertial frame of reference because it is revolving around the sun and also on its own axis. and a accelerated object can't be taken as inertial frame of reference. and a reference frame attached to an non-inertial frame also can't be taken as inertial frame of reference. Hence both 'B' and 'D' are true.