

WS-3

Task

(8)

Due to inertia of motion the body released from rising balloon follows its original path until its velocity becomes zero.

(9)

When the stem of the tree are shaken, they come in motion, while the fruits due to inertia, remain in the state of rest. Thus, massive and weakly attached fruits get detached from the branches and fall down due to gravity.

(10)

As wet dog shakes its body the water droplets set into motion with certain speed in particular direction will fly outward due to their inertia of motion as well as inertia of direction.

(11)

The dishes continues to be at rest due to inertia, when the cloth is suddenly pulled out.

(2)

Due to inertia of direction, once the mud particles are flung due to no external force acting their direction of motion can not change. so the mud particles follow tangential

path.

Task

Ques

(2)

when an athlete runs some distance, the velocity acquired due to inertia is added to the velocity of the athlete at the time of jump. since length of the jump depends on the initial velocity, the athlete is likely to jump a longer distance by doing so.

(3)

when the horse suddenly stops, the rider falls forwards because the lower part of the body of the rider which is in contact with horse comes to rest, but because of inertia, the upper part tends to be at rest. Hence the rider falls forward.

(4)

on hitting with stick, the carpet comes into motion but because of inertia, the dust particles remains at rest. due to this dust particles get removed from carpet

SAQ's

- ⑥ When car starts suddenly, the driver falls backward because the lower part of the body of driver which is in contact with seat starts move along with car, but the remaining part of the body of driver wants to be at rest. That's why the driver falls back.

⑦ Take answer from (3) CMC.

- ⑧ When a bus suddenly takes a turn the passengers are thrown outward because the lower part of the body of a passenger which is in contact with bus starts turn along with bus, but the remaining part of the body of passenger wants to move in its original direction, so the passenger is thrown outward.