Short / Long Answer Questions.

21 What do you mean by conversi conservation of mechanical energy? State the condition when does it hold

Ans This means "The total Mechanical Energy" $(P.E + K.E)$ of an isolated system at any instant is equal to the sum of kinetic energy and the potential Energy".

Condition : Condition under which the mechanical energy is conserved is " When There Are No Frictional Forces." In other words the mechanical energy is conserved strictly in ~~vacuum~~ vacuum where friction due to air is absent.

22 Give one example to show that the sum of potential energy and kinetic energy remains constant if

friction is ignored.

Ans During the vertical fall of ball
if friction due to air is neglecte
-d, the total sum of potential
energy and kinetic energy at each
point of its path remains same.