

Sol. Let M and N be two normal subgroups of a group G .

$\therefore M$ and N are subgroups of G .
 $\Rightarrow MN$ is also a subgroup of G .

Let $h \in MN$ and $g \in G$
 $\Rightarrow h \in M$ and $h \in N$ and $g \in G$

Since M and N are normal subgroups of G .

$\therefore ghg^{-1} \in M$ and $ghg^{-1} \in N$.

$\Rightarrow ghg^{-1} \in MN, \forall g \in G$ and $h \in MN$

$\therefore MN$ is a normal subgroup of G .