2. $\vec{A}, \vec{B}$ and $\vec{C}$ are three non-collinear, non-co-planar vectors. What can you say about direction of $\vec{A} \times (\vec{B} \times \overline{C})$?

Sol. The direction of the vector $(\vec{B} \times \overline{C})$ will be perpendicular to the plane containing the vectors $\vec{B}$ and $\vec{C}$ by right-hand thumb or right-hand grip rule (RHGR).

The direction of the vector $\vec{A} \times (\vec{B} \times \overline{C})$ will be perpendicular to $\vec{A}$ and in a plane containing $\vec{B}$ and $\vec{C}$ by right-hand grip rule.