Let $G$ be a graph with vertex set $V(G)$ and edge set $E(G)$. The first generalized multiplicative Zagreb index of $G$ is $\prod_{1,c}(G) = \prod_{v \in V(G)} d(v)^c$, for a real number $c > 0$, and the second multiplicative Zagreb index is $\prod_2(G) = \prod_{uv \in E(G)} d(u)d(v)$, where $d(u), d(v)$ are the degrees of the vertices of $u, v$. The multiplicative Zagreb indices have been the focus of considerable research in computational chemistry dating back to Narumi and Katayama in 1980s. In this paper, we generalize Narumi-Katayama index and the first multiplicative index, where $c = 1, 2$, respectively, and extend the results of Gutman to the generalized tree, the $k$-tree, where the results of Gutman are for $k = 1$. Additionally, we characterize the extremal graphs and determine the exact bounds of these indices of $k$-trees, which attain the lower and upper bounds. (Received January 27, 2014)