1145-05-814Seyyedeh Tahereh Jalali* (stahereh jalali1358@gmail.com), 20 Elm-Sanat Blvd, 13548Semnan, Semnan, Iran, and Masoud Ghods (mghods@semnan.ac.ir), 20 Elm-Sanat Blvd, 13548Semnan, Semnan, Iran. On K Banhatti indices.

In this project, we introduce some connectivity indices of a graph. A topological index is a numeric quantity from the structural graph of a molecule. Let G = (V, E) be a connected graph. The K Banhatti indices were introduced by Kulli in 2016. They are defined as B1 (G) = Σ ue [dG (u) + dG (e)] and B2 (G) = Σ ue dG (u) dG (e), where ue means that the vertex u and edge e are incident and dG (e) denotes the degree of the edge e in G. In this work, formulas for the K Banhatti index of several derived graphs are obtained. Analogous to other topological polynomials, the K Banhatti-polynomial of graph G is also defined. We also determine K Banhatti and K Banhatti-polynomial for certain important chemical structures like nanotubes covered by C5 and C7. (Received September 15, 2018)