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ON C-HEAVY SUBGRAPHS FOR HAMILTONICITY OF GRAPHS

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Let G be a graph. A vertex is called to be heavy in G if it has degree at least $|V(G)|/2$ in G . Let G' be an induced subgraph of G . If for every maximal clique T of G' , each nontrivial component of $G' - T$ contains a heavy vertex of G , then we say G' is c -heavy in G . For a given graph H , we say that G is H - c -heavy if every induced subgraph of G isomorphic H is c -heavy. We characterize all the pairs of connected graphs $\{R, S\}$ such that for any 2-connected graph G , G being R, S - c -heavy implies G is hamiltonian. Our results extend the the results of forbidden subgraph conditions for hamiltonicity by Bedrossian, Faudree and Gould.