GRAPH THEORY: CLASS 17

1) Determine the values of $\alpha(G), \beta(G), \alpha_1(G), \beta_1(G)$ for the graph G below.

2) Prove that if G is a graph of order n and maximum degree Δ, then $\alpha(G) \geq \frac{n}{\Delta+1}$.

3) Give an example of a i-regular graph that contains no 1-factor, $i = 2,3,4$.

4) Using theorem 8.10 to show that $K_{3,5}$ does not have 1-factor.

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