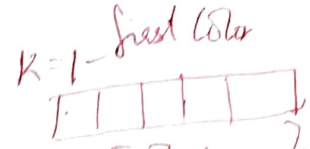
Graph Coloring.

m – no. of Colors.

Algorithm : mcoloring(k)

{



while (true)

{ NextValue(k); – which color to // assign x[k] to a legal color

if(x[k]=0) then // no such color possible.

return;

if (k=n) then

write (x[1:n]);

else

mcoloring(k+1);

mcoloring(2)

mcoloring(3)

}

The ~~below~~ above algm. finds legal colors for k^{th} vertex of graph. A value for x[k] is determined as the range(1..m). x[k] is assigned the next highest numbered color while maintaining distinct from the adjacent vertices of vertex k.

If no such color exists then x[k] is assigned. 0 x[1]... x[k-1] have been assigned integer values in the range [1,m] such that adjacent vertices have distinct integers

Graph is represented by its boolean adjacency matrix.