(a)

First, we should build a flow network, where the flow corresponds to the match. Then let s and t be new vertices that do not belong to V. We add the vertices in the original graph to the flow network and connect them with s and t. Finally, we apply the Ford-Fulkerson Algorithm to find the maximum flow, which also represents the maximum match.

(b)

Construct a bipartite graph with N left vertices representing the sequence A and M-1 right vertices representing the distinct integer B. Then we will add a super source and a super sink T and connect S with left hand side vertices with edges of unit capacity and connect T with right hand side vertices with edges of unit capacity. Then we connect all the vertices on the left hand side that can be divisible by the right hand side and the capacity is unit. Finally, we can run the Edmonds-Karp algorithm to get the maximum flow through the network.