Computer Science and Engineering Department
Artificial Intelligence (UCS-411)
Lab Assignment-4

Q1

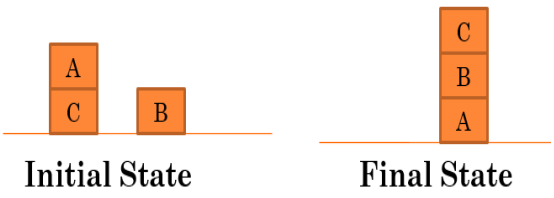
Solve the following blocks world problem using Simple Hill Climbing Algorithm. Let the heuristic be
+1 if the block is resting on the correct block and
-1 if it is resting on the incorrect block

Q2

Solve the following blocks world problem using Simple Hill Climbing Algorithm. Take the following heuristic function:
+n for block which is resting on the current support structure and n is equal to number of blocks below it.
-n for block which is resting on the incurrent support structure and n is equal to number of blocks below it.

Q3

Solve the following blocks world problem using Steepest Hill Climbing Algorithm. Take the following heuristic function:
+n for block resting on the current support structure and n is equal to number of blocks below it.
-n for block resting on the incurrent support structure and n is equal to number of blocks below it



Q4

Solve the following problem using beam search algorithm, by taking
(i) Beam width =2
(ii) Beam width =3
Heuristic values are given in the diagram; A is the starting node and G is the goal node.