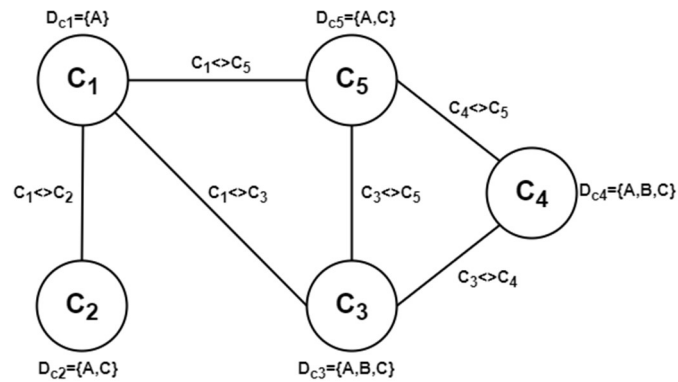


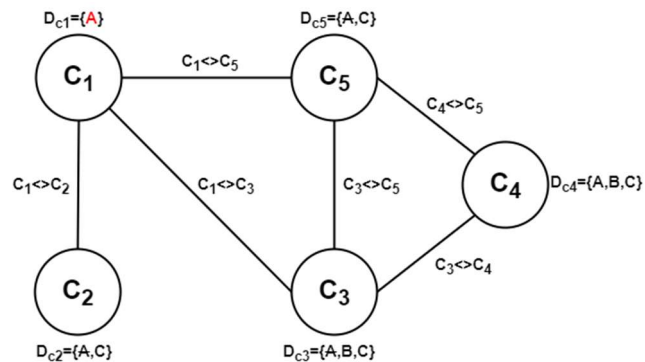
Problem 6.2 Scheduling CS Classes with Constraint Propagation

Answer:

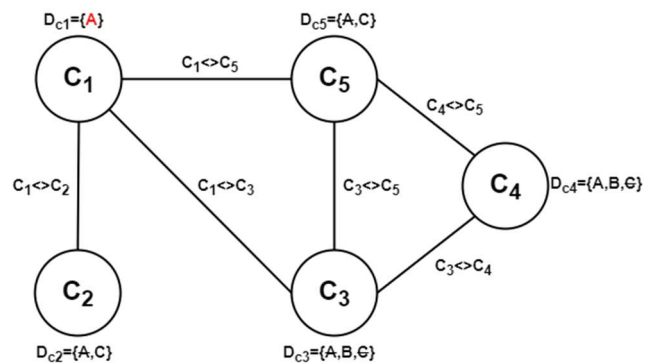
Considering previous binary CSP constraint graph with variables and their respective domain, it looks like,



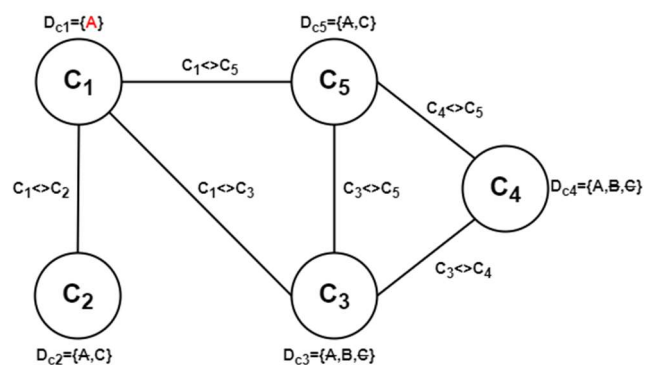
1. If we choose most constrained variable, in this case C_1 , then assign $C_1 = A$ and run arc-consistency for updating domains,



Similarly choose C_5 and check further,



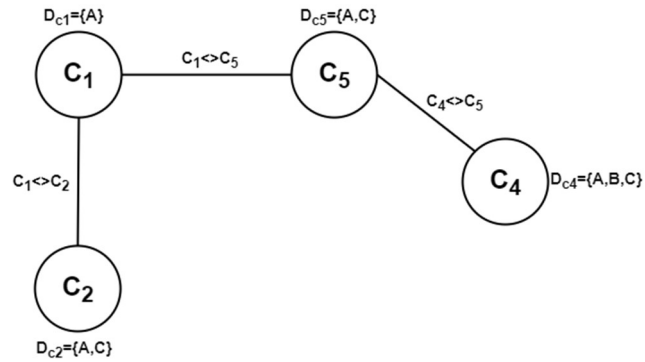
Then finally, choose C_3 and check further,



Therefore, running arc-consistency, the binary CSP can discard unnecessary values of all domains or update domains such a way that it can obtain to its solution, which is as follows,

$$C_1 = A, C_2 = C, C_3 = B, C_4 = A, C_5 = C$$

2. Considering above binary CSP constraint graph, all optimal cutsets for the CSP will be,
By discarding C_3 ,



By discarding C_5 ,

