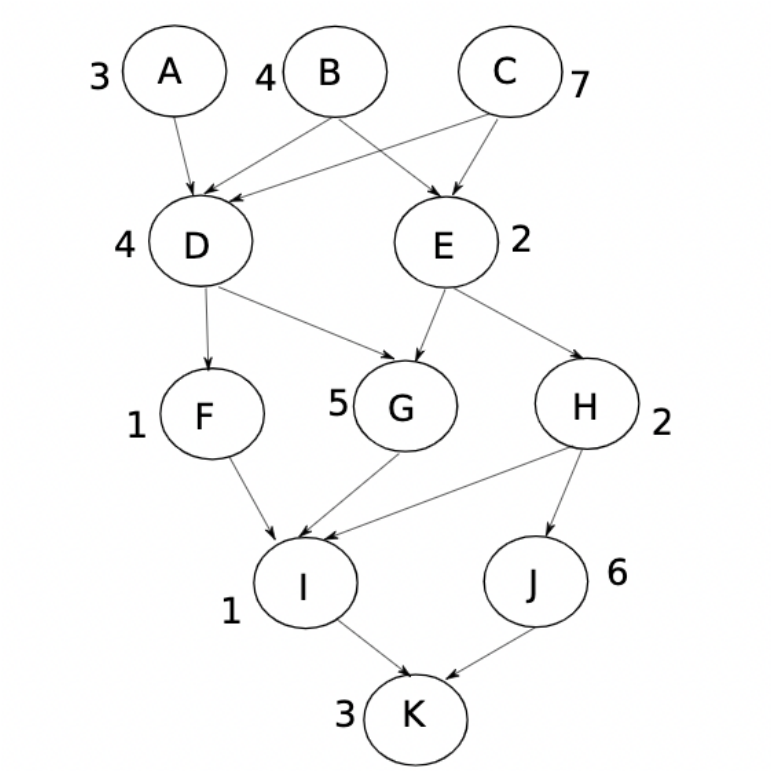
Name :- Kiran Bagwe(801223392) and Mukesh Dasari(801208218)

1 Midterm Fall 2017

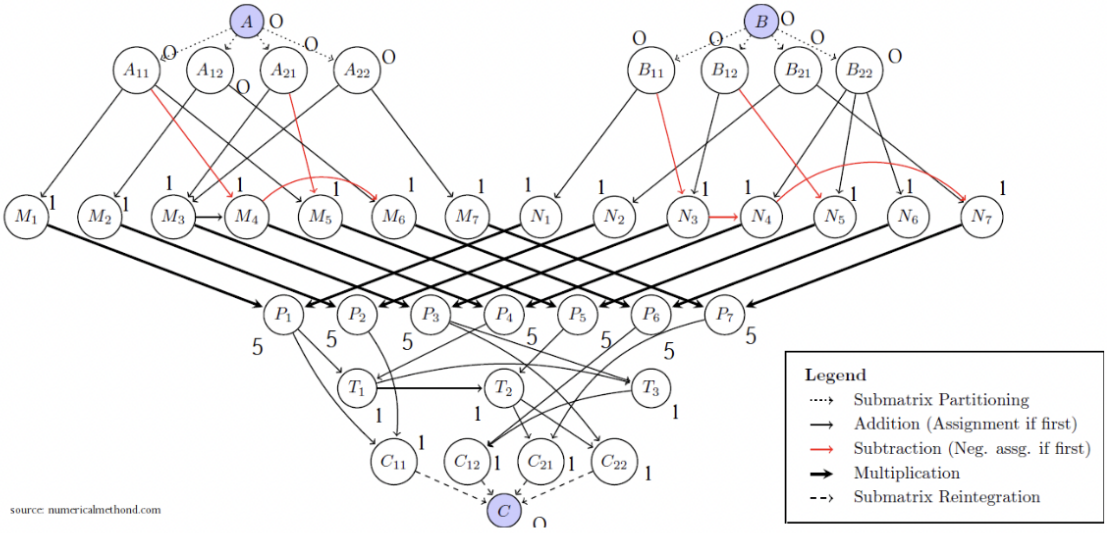


Question:What is the work of this task graph?
Answer: The work of this task graph is sum of all processing time which is 38 time units

Question:What is the width of this task graph? (Estimates are fine.)
Anwer: Since there are only three task which does not have dependency , the width is 3

Question:What is the critical chain of this task graph? What is its length?
Answer :- The critical chain of this task graph is C->E->H->J->K and length is 20

2 Strassen



Question:What is the work of this task graph?
Answer :- The work of this task graph is sum of all processing time which is 56 time units

Question:What is the width of this task graph? (Estimates are fine.)
Answer: - Since there are only 10 task which does not have dependency , the width is 10
And those are M1, M2, M3, M5, M7, N1, N2, N3, N5, N6

Question:What is the critical chain of this task graph? What is its length?
Answer:- There are many critical paths in this graph.

A->A21->M3->M4->P4->T1->T2->C22->C with weight 10
A->A21->M3->M4->P4->T1->T2->C21->C with weight 10
A->A22->M3->M4->P4->T1->T2->C22->C with weight 10
A->A22->M3->M4->P4->T1->T2->C21->C with weight 10
B->B11->N3->N4->P4->T1->T2->C22->C with weight 10
B->B11->N3->N4->P4->T1->T2->C21->C with weight 10
B->A12->N3->N4->P4->T1->T2->C21->C with weight 10
B->A12->N3->N4->P4->T1->T2->C22->C with weight 10

3 Independent Tasks 1

Question:What is the work of this task graph?
Answer: The work of this task graph is sum of all processing time which is 9 time units

Question:What is the width of this task graph? (Estimates are fine.)
Answer: Since all the tasks are independent to each other , each will need their own core for execution
Hence the width is 7

Question:What is the critical chain of this task graph? What is its length?
Answer: The critical chain is the longest chain of dependency hence the critical chain is G and length is 3.

4 Independent Tasks 2

Question:What is the work of this task graph?
Answer:The work of this task graph is sum of all processing time which is 33 time units

Question:What is the width of this task graph? (Estimates are fine.)
Answer:Since all the tasks are independent to each other , each will need their own core for execution
Hence the width is 7

Question:What is the critical chain of this task graph? What is its length?
answer:The critical chain is the longest chain of dependency hence the critical chain is G and F with length 6 each.