

CEE 536
Problem Set 3

Scheduling Activity-on-Arrow Networks

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Fall 2025

September 11, 2025
Due: September 18, 2025

Problem 1

For the activity-on-arrow (AOA) network information given below:

- a. Set up a table, and without drawing the network diagram, compute the four schedule dates (*ESD*, *EFD*, *LSD*, *LFD*) and the four floats (*TF*, *FF*, *INTF*, *INDF*).
- b. Identify the activities on the critical path and the project duration.

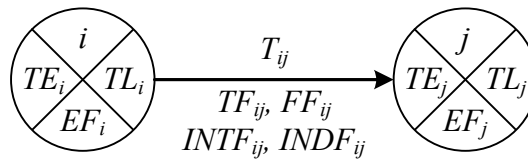
<i>i</i>	<i>j</i>	<i>ACT</i>	<i>T_{ij}</i>	<i>i</i>	<i>j</i>	<i>ACT</i>	<i>T_{ij}</i>
5	10	S	4	30	50	H	6
5	15	R	3	35	45	d4	0
10	20	A	5	35	55	J	4
10	25	E	2	40	65	M	6
10	30	d1	0	45	65	d5	0
15	30	G	2	45	70	T	3
15	35	B	1	50	65	W	3
20	40	d2	0	50	70	d6	0
20	60	L	2	55	70	X	5
25	40	K	2	60	75	N	6
25	45	d3	0	65	75	P	4
30	45	C	3	70	75	V	4

Problem 2

For the activity-on-arrow (AOA) network information given below:

- Construct an arrow diagram.
- On the diagram, compute the early and late event times (TE and TL) and event float (EF) for each node. Use event times to determine the four floats (TF , FF , $INTF$, $INDF$) for each activity. Identify the activities on the critical path and the project duration.

Calculate and show results on the diagram in the following form:



i	j	ACT	T_{ij}	i	j	ACT	T_{ij}
2	4	A	3	18	22	M	10
2	6	B	4	18	24	N	6
4	8	d1	0	20	26	P	9
4	12	G	7	20	28	d4	0
6	10	E	6	22	28	d5	0
6	14	F	1	22	30	d6	0
8	12	C	3	24	30	Q	8
10	12	d2	0	26	32	R	8
10	14	d3	0	28	32	S	5
12	16	H	2	28	34	T	6
14	18	J	5	30	34	V	2
16	20	K	3	32	36	U	3
16	22	L	4	34	36	W	9