CISC4002 - Software Project Management

Project

You are given following information about a project:

Task	Predecessor	Resource	Duration (m)	Duration (a)	Duration (b)
A	-	SA	4	3	5
B	A	SA	8	8	14
C	B	SD	6	4	8
D	B	SD	7	4	10
E	C	SD	10	9	17
F	D	SD	9	8	10
G	E	P	9	7	11
H	E	P	4	2	6
I	F, H	P	12	12	18
J	F	P	12	11	13
K	G, I	P	2	2	2
L	J, K	SA	3	2	4

Resources: SA = System Analyst; SD = Software Designer; P = Programmer

Write a report containing the answers for the below questions:
1. (12%) Draw an activity network for this project, showing only the task ID in each task box.
2. (12%) Calculate the expected duration (t_2) and standard deviation (s) for each activity.
3. (24%) Using the expected duration calculated in question 2 above, calculate schedule dates (earliest & latest start and finish, and float).
4. (6%) Given a target date of 55 days, what is the probability of finishing this project on time? (Refer to the graph of z values in the lecture notes.)
5. (6%) Produce a table showing the number of specialists of each type needed on each day of the project.
6. (6%) Assume that because of resource limitations this project can only get a team consisting of 1 system analyst, 2 software designers and 2 programmers. Produce an optimal schedule given this constraint and produce a modified resource allocation table.
7. (4%) What is the delay to the project caused by the revised resource allocation of question 6 above?
8. (30%) Create a project into Project Libre with the information above and generate Gantt chart, activity network and reports (project details, resource and cost information, task information and who does what). The following standard salary rates must be used: System analyst (SA): $2000/h standard rate, Software designer (SD): $1500/h and the Programmers (P): $1000/h standard rate.