

SYSC 4106 – Winter 2020 - Case Study Assignment 1 → 30 marks (5% of the final grade)**→ Posted = Feb. 25, 2020 Due = March 10, 2019 @ 11:55 pm on cuLearn****Note: Use the same “reading/writing project” subgroup members for this case study****Question 1[20 marks]****Note that all activities are in weeks.**

Activities	Predecessors	Optimum	Normal	Pessimistic	Expected Time	Variance-1	Variance-2
a	none	5	6	9			
b	none	4	4	6			
c	none	7	9	15			
d	a	6	6	6			
e	b	4	5	7			
f	b	12	16	17			
g	c	8	12	20			
h	c	7	9	16			
i	d,e	10	14	18			
j	f,g	6	12	20			
k	h	7	9	14			
						$\Sigma =$	$\Sigma =$
						sd =	sd =

- Calculate the expected time and variance for each activity
- Draw the network
- Using the expected times, find the critical path and the critical time
- Assume that the times in the table were made at 90% level
 - Using the table, calculate Variance-1, find the average and the standard deviation
 - Find the probability that the critical path will be completed in 40 weeks or less
- Assume that the times in the table were made on the 99% level.
 - Using the table re-calculate the activity variances (i.e. Variance-2) with this assumption, find the average and the standard deviation and
 - Find the probability that the critical path will be completed in 40 weeks or less.
- Briefly explain the differences between the two results above (i.e. d(i) and e(i) above).

Question 2 [10 marks]

Consider a project manager with a team of 15 to 20 people: a mixture of analysts, designers, programmers and support staff. The project also uses some specialist staff on a part-time basis. How could the project manager influence the working environment of such a team so as to get the best out of them? What are the behaviors that he or she could exhibit that would have an effect on the working style of the project team?

Please, read chapter 11 of the recommended book (by Bob Hughes et al.). (Not more than one-page references included.)