

組別：

(不記名，滿分 40 分、無故缺席者得 20 分；每人最後得分=該組平均)

得分	a.	b.	c.	d.	e.	f.	g.	總分
----	----	----	----	----	----	----	----	----

1. The following table lists a number of tasks that must be completed in order for a crew of workers to finish a project.

Task	A	B	C	D	E	F	G	H	I	J
Time (in days)	2	2	3	1	1	2	3	4	3	3

Suppose the project starts at Apr. 9. Task A must be carried out before any other tasks can start. Task B must precede tasks E and F, and both E and F must be completed before H can begin. Tasks C and D must precede task G, which in turn must precede I. Task J must be carried out last. It is assumed that there are enough workers to carry out any number of tasks simultaneously.

(a) [10%] Draw a PERT diagram showing the relations of these tasks. (b) [5%] Draw the critical path.

(c) [5%] We say a "conflict of tasks" occurs when two tasks violate their precedent relations. Give a suitable sequence for conducting all the tasks so that no conflict of tasks occurs in the entire process.

(d) [5%] What is the fewest number of days needed to make this product?

(e) [5%] What is the earliest date for this project to be done?

(f) [5%] If we start to do task D in Apr.14, will it affect your answer in (e)? If yes, affect how much? If no, explain why not.

(g) [5%] What is the latest date for task H to begin, in order not to affect your answer in (e)?