

BSc(Hons)PROJECT & CONSTRUCTION MANAGEMENT

PROJECT PLANNING, MONITORING AND CONTROL

- (a) A contract has been scheduled for all activities to start as early as possible using normal cost durations. Preliminaries are £4,500 per week, liquidated damages are £10,000 per week and the contract completion date has been derived, assuming all activities proceed at normal duration.

Using the precedence diagram (Figure 1) and activity schedule information in Table 3, prepare a bar chart showing earliest and latest dates for each activity using normal cost durations.

- (b) At a progress meeting at the end of week 16, it is noted that the activities A, B, C and E were completed on time. F cannot start for one week and although D started on time, its duration will now be twelve weeks. A one week extension of time has been granted.

Re-schedule the activities to complete the contract economically and comment on the solution.

TABLE 3

Activity	Normal Cost (£'000)	Duration at Normal Cost (Weeks)	Minimum or Crash Duration (Weeks)	Crash Cost at Minimum Duration (£'000)
A	17	6	5	20
B	4	10	7	5
C	10	14	10	11
D	5	4	4	same
E	6	2	1	8
F	4	1	1	same
G	18	5	3	28
H	12	8	6	14
J	9	4	3	10
K	11	5	2	17

