

Critical Path Analysis - Exercises (2 pages; 14/8/19)

(1)(i) [Edx, OCR & MEI] Draw an activity-on-arc network to represent the following project, and establish the earliest and latest event times.

[AQA] Draw an activity-on-node network to represent the following project, and establish the earliest start and latest finish times.

Activity	Immediate predecessors	Duration
A	-	5
B	-	7
C	B	4
D	B	6
E	D	5
F	A	3
G	F	9
H	A,C	7
I	E	7
J	F	5
K	D,G,H,I	8
L	D,G,H,I	8
M	E	9
N	J	6
O	L,M	9
P	O	6

Q	J,K,P	4
R	O	7

(ii) State the critical path(s).

(iii) The duration of each activity can be reduced at a cost (with the amount of possible reduction varying by activity). If the project is to be completed as quickly as possible, describe how the required extra cost can be established.