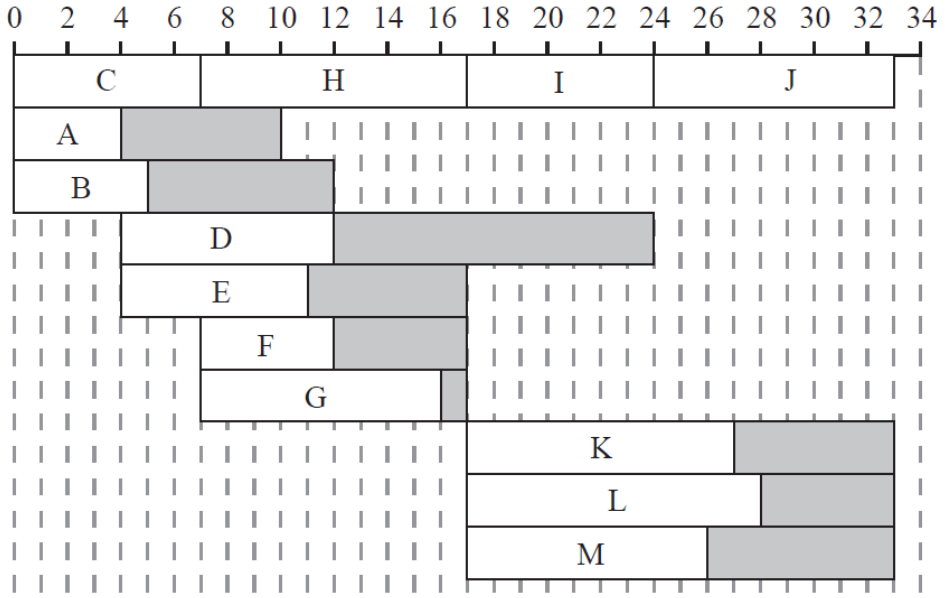
Question Number	Scheme	Marks
3.(a)	$x = 8$, $y = 12$, $z = 17$	B3, 2, 1, 0 **(3)**
(b)		M1 A1 A1 A1 **(4)**
(c)	Lower bound is 4 workers e.g. activities J, K, L and M together with $24 < \text{time} < 26$	M1 A1 **(2)**
		9 marks

Notes for Question 3

a1B1: x value correct
a2B1: y value correct
a3B1: z value correct

b1M1: At least ten activities labelled including at least five floats. A scheduling diagram scores M0
b1A1: The critical activities dealt with correctly and appearing just once (C, H, I and J) and three non-critical activities dealt with correctly
b2A1: Any six non-critical activities correct (this mark is not dependent on the previous A mark)
b3A1: CSO – completely correct Gantt chart (exactly thirteen activities appearing just once)

c1M1: Either a statement with the correct number of workers (4) and the correct activities (J, K, L and M) with any numerical time stated **or** the correct number of workers (4) and a time in the interval $24 \leq x \leq 26$ – mark the numerical value only not their use of day/time
c1A1: A completely correct statement with details of both time and activities. Candidates must give a time within the correct interval of $24 < t < 26$. Please note the strict inequalities for the time interval (e.g. implying a time of 24 is incorrect). Answers given as an interval of time are acceptable provided the time interval stated is correct for all its possible values (e.g. time 25 – 26 is A0). Note that 'on day 25' or 'on day 26' are correct but 'on day 24' is not correct. A completely correct statement with an additional incorrect statement scores A0 (so no isw)