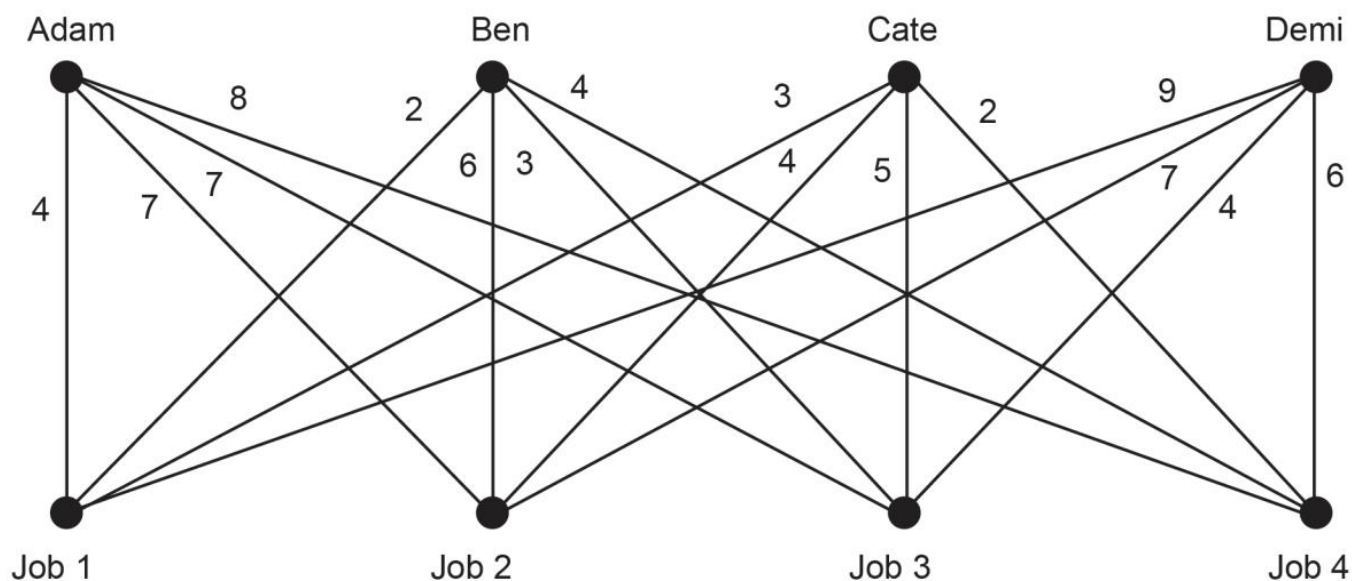


### Question 3

(8 marks)

A foreman in a factory has four workers, Adam, Ben, Cate and Demi, and four jobs to complete. The time, in hours, each worker can complete a particular job is given in the weighted bipartite graph below.



(a) Complete the matrix associated with the bipartite graph above.

(2 marks)

	J1	J2	J3	J4
A	4		7	
B		6	3	
C	3			2
D		7		6

- (b) Using the Hungarian algorithm, determine which job the foreman should assign to each of his workers so that the total time is minimised. (6 marks)