5 (a) (i) A gardening group has 20 members. A committee of 6 members is to be selected. Anwar and Bo belong to the gardening group and at most one of them can be on the committee. How many different committees are possible? [2]

(ii) The gate for the garden has a lock with a 6-character passcode. The passcode is to be made from

Letters	G	A	R	D	E	N				
Numbers	0	1	2	3	4	5	6	7	8	9.

No character may be used more than once in any passcode.
Find the number of possible passcodes that have 4 letters followed by 2 numbers. [2]

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(b) (i) Given that $n \geqslant 4$, show that $(n-3) \times {}^{n}C_{3} = 4 \times {}^{n}C_{4}$. [2]

(ii) Given that ${}^{n}C_{3} = 5n$, where $n \geqslant 3$, show that n satisfies the equation $n^2 - 3n - 28 = 0$. Hence find the value of n. [4]