# Permutations and Combinations 

## Question Paper

| Level | Pre U |
| :--- | :--- |
| Subject | Maths |
| Exam Board | Cambridge International Examinations |
| Topic | Statistics- Permutations and Combinations |
| Booklet | Question Paper |


| Time Allowed: | $\mathbf{2 0}$ minutes |
| :--- | :---: |
| Score: | $/ 17$ |
| Percentage: | $/ 100$ |

Grade Boundaries:

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1 There are 15 students enrolled in a Maths club.
(i) In how many ways is it possible to choose 4 of the students to take part in a competition?

There are 4 different medals to be allocated, at random, to the students in the Maths club.
(ii) If there are no restrictions about how many medals a student may receive, in how many ways can the medals be allocated?
(iii) Find the probability that no student receives more than one medal.

2 A game is played with cards, each of which has a single digit printed on it. Eleanor has 7 cards with the digits $1,1,2,3,4,5,6$ on them.
(i) How many different 7-digit numbers can be made by arranging Eleanor's cards?
(ii) Eleanor is going to select 5 of the 7 cards and use them to form a 5 -digit number. How many different 5 -digit numbers are possible?

