

# Junior Certificate 2014

## Retained information on Paper 1 from Old Syllabus

Please note the following for the Junior Certificate Syllabus 2014 (All levels)

Strands 1 to 4 only will be examined in JC 2014. These are:

- S1: Probability/Statistics
- S2: Geometry/Trigonometry
- S3: Number
- S4: Algebra
- S5: Functions(2015 only)\*\*

I assume there will be an 'Old Syllabus' section on Paper 1 as there was in LC 2013. This has yet to be clarified by the Department.

The following parts of the old syllabus are retained for Paper 1 2014:

### Junior Certificate Higher:

Functions and graphs:

1. Concept of a function. Couples, domain, codomain, range.
2. Use of function notation:  $f(x) =$   
 $f: x \rightarrow$   
 $y =$   
Drawing graphs of functions  $f: x \rightarrow f(x)$ , where  $f(x)$  is of the form  $ax + b$  or  $ax^2 + bx + c$ , where  $a, b, c \in \mathbb{Z}, \in \mathbb{R}$ . Using the graphs to estimate the (range of) value(s) of  $x$  for which  $f(x) = k$ , where  $k \in \mathbb{R}$ .
3. Maximum and minimum values of quadratic functions estimated from graphs.
4. Graphing solution sets on the number line for linear Solution of quadratic inequalities in one variable.
5. Graphical treatment of solution of first degree simultaneous equations in two variables. Inequalities is excluded, but students may be asked to read off a range of values for which a function is (say) negative.

**The below Junior Certificate Ordinary and Foundation Content is examinable on the Higher Level Paper.**

## Junior Certificate Ordinary:

Functions and graphs

1. Concept of a function. Couples, domain, codomain, range
2. Use of function notation:  $f(x) =$   
 $f:x \rightarrow$   
 $y =$   
Drawing graphs of functions  $f : x \rightarrow f(x)$ , where  $f(x)$  is of the form  $ax+b$  or  $ax^2 +bx+c$  where  $a, b, c \in \mathbb{Z}$ ,  $x \in \mathbb{R}$ . Using the graphs to estimate solution of equations of the type  $f(x) = 0$ .
3. Graphing solution sets on the number line for linear inequalities in one variable.
4. Graphical treatment of solution of first degree simultaneous equations in two variables. Example:  $2x + 1 < 5$ ,  $x \in \mathbb{R}$

The below Junior Certificate foundation material is examinable on the Higher Level and Ordinary level paper.

## Junior Certificate Foundation:

Relations, functions and graphs

1. Couples. Use of arrow diagrams to illustrate relations.
2. Plotting points. Joining points to form a line.
3. Drawing the graph of forms such as  $y = ax + b$  for a specified range of values of  $x$ , where  $a, b \in \mathbb{N}$ . Simple interpretation of the graph.

Example: “is greater than”.

Example: Draw the graph of  $y = 3x + 5$  from  $x = 1$  to  $x = 6$ .