# THE LINE (Q 2, PAPER 2)

## LESSON NO. 5: EQUATION OF A LINE I

#### 2007

- 2 (b) The line L intersects the x-axis at (-4, 0) and the y-axis at (0, 6).
  - (i) Find the slope of *L*.
  - (ii) Find the equation of *L*.

The line *K* passes through (0, 0) and is perpendicular to *L*. (iii) Show the lines *L* and *K* on a co-ordinate diagram.

(iv) Find the equation of *K*.

#### 2001

2 (a) The point (t, 2t) lies on the line 3x + 2y + 7 = 0. Find the value of t.

#### 1999

- 2 (a) The point (k, 1) lies on the line 4x-3y+15=0. Find the value of k.
  - (b) *p*(4, 3), *q*(-1, 0) and *r*(10, 3) are three points.
    (i) Find the slope of *pq*.
    - (ii) Find the equation of the line through r which is parallel to pq.
    - (iii) Find the equation of the line which is perpendicular to pq and which contains the origin.

### 1998

2 (a) The point (-3, 4) is on the line whose equation is 5x + y + k = 0. Find the value of k.

#### 1996

2 (b) The equation of the line *M* is y-4x-c=0.

- *M* contains the point p(1, 6).
- (i) Find the value of *c*.
- (ii) The origin is the midpoint of [*pq*].Find the equation of the line *K* if *K* is parallel to *M* and *K* contains the point *q*.
- (iii) Find the equation of the line L if L is perpendicular to M and L contains the point q.

