

## N\_O\_T\_A\_T\_I\_O\_N\_S

$k$  is a finite field of characteristic  $p \neq 2$ ;  $k(x)$  is the field of rational functions in one variable over the finite field  $k$ ;  $k[x]$  is the ring of polynomials in  $k(x) = K$ .  $K_f$  is the completion of  $K$  at the polynomial  $f$  and  $K_{1/x}$  is the completion at  $1/x$ .  $\delta$  and  $\gamma$  are nondegenerate symmetric matrices of orders  $m$  and  $n$ .

$\delta[x], \gamma[Y]$  are the quadratic forms  $X' \delta X, Y' \gamma Y$  also denoted by  $F$  and  $G$  in Chapter - I -e elements in  $k[x]$  are referred to as 'integral' and those in  $k(x)$  are 'rational' unless a specific mention is made of the elements in the rational number field  $\mathbb{Q}$ .  $|\delta|$  denotes the determinant of  $\delta$  and  $||\delta||$  is the value of the determinant of  $\delta$ .  $|\delta| \neq 0, |\gamma| \neq 0$ .  $k[x]$  is also denoted by  $R$  in Chapter I.  $R_f$  is the ring of  $f$ -adic integers.

$(R^{(g)}, g = 1, \dots, 2^n)$  are the diagonal matrices with elements  $\pm 1$  in the diagonals.  $[ ]$  is used for references in the bibliography.

$| |$  is used for the valuation at  $1/x$ .

Some more notations are introduced in Chapter III and these can be interpreted as per the context.