Let $P = \{ \xi \in R :\ [y : V(y) > \xi]$ is a measure zero set in some nbd of $x \}$ $\Rightarrow$ $V_m(x) =$ infimum P.

Given $l_U = \sup_U V(y)$, consider $[y \in U : V(y) > l\ ]$.
$\Rightarrow$ It is a measure zero set. $\Rightarrow$ l is an elemt of P $\Rightarrow$ $l_U \geq V_m(x)$. Let $l = \underset{\overrightarrow{U}}{\text{limit}}$ of l_U.

Suppose $l > V_m(x)$.
$\Rightarrow \exists$ a s.t $l > a > V_m(x)$.
$\Rightarrow$ Since $a > V_m(x)$, $\exists$ an open nbd U of x s.t $\{ y \in U : V(y) > a \}$ is a measure zero set.
$\Rightarrow$ $\sup_U V(y) \leq a$. $\Rightarrow$ $l_U \leq a$ $\Rightarrow$ Since $l \leq l_U$ for all U, $l \leq a$ $\Rightarrow$ Contradiction.
$\Rightarrow$ $l = V_m(x)$.

If V is twice continuously differentiable, condition (5) says that the continuous function $T(V, \vec{X})$ is positive, and this is equivalent to (1).

We deduce from Definition 1 the following result: plurisubharmonicity is a local property; if V is plurisubharmonic in D_1 and D_2, it is also plurisubharmonic in $D_1 \cup D_2$.

Definition 1'. A function V defined in a domain of $\mathbb{R}^m$ is said to be subharmonic if it satisfies properties (1a), (1c), and

1d) The Laplacian (in a distributional sense) ΔV is positive.