Additions to Part I: Numerical List of Forms, January 2001

New Forms

[**0 AT**] Every complete lattice is constructively $\mathcal{F}$-complete. Erné [2000] and note 154

[**0 AU**] Every complete lattice is constructively $\mathcal{W}$-complete. Erné [2000] and note 154

[**1 DH**] Every complete lattice is constructively complete. Erné [2000] and note 154.

[**1 DI**]**($\mathcal{Z}$)** (Where $\mathcal{Z}$ is a subset selection such that for all partial orders $(P, \leq)$, $\mathcal{E}P \subseteq \mathcal{Z}P \subseteq \mathcal{D}P$.) Every complete lattice is $\mathcal{Z}^{\vee}$-constructively complete. Erné [2000] and note 153

[**1 DJ**] Every directed partially ordered set is constructively directed. Erné [2000] and note 154

[**67 AB**] Every complete lattice is constructively $\mathcal{F}$-complete. Erné [2000] and note 154

[**67 AC**] Every complete lattice is constructively $\mathcal{U}$-complete. Erné [2000] and note 154

[**144 B**] Set Induction Principle. If $X \subseteq \mathcal{P}(S)$ contains all finite subsets of S and for every subset $Y \subseteq X$ such that Y is well ordered by $\subseteq$, $\bigcup Y \in X$ (such an X is called $\mathcal{W}$-inductive in Erné [2000]) then $S \in X$. Erné [2000], note 154 and note 156.

[**144 C**] Every $\mathcal{W}$-inductive system is ${}^{c}\mathcal{D}$-inductive. Erné [2000] and note 154.

[**144 D**] Every $\mathcal{W}$-inductive decreasing system (i.e., closed under $\subseteq$) is of finite character. Erné [2000] and note 154.

[**144 E**] Every $\mathcal{W}$-union preserving map on a power set preserves $\mathcal{D}$-unions. Erné [2000] and note 153.

[**144 F**] Every $\mathcal{W}$-inductive closure system is an algebraic lattice (using the ordering $\subseteq$). Erné [2000] and note 154.

[**144 G**] Every $\mathcal{W}$-complete $\vee$-semilattice with least element is a complete lattice. Erné [2000] and note 154.

[**144 H**] If X is a $\mathcal{W}$-subcomplete subset of a complete lattice and X is closed under $\leq$, then X is Scott closed. Erné [2000] and note 154.

[**144 I**] Every $\mathcal{W}$-compact element of a complete lattice is compact. Erné [2000] and note 154.

[**144 J**] Every $\mathcal{W}$-surpema preserving map on complete lattices preserves $\mathcal{D}$-suprema. Erné [2000] and note 154.

[**144 K**] Every $\mathcal{W}$-complete poset is ${}^{c}\mathcal{D}$-complete. Erné [2000] and note 154.

[**144 L**] Every $\mathcal{W}$-subcomplete subset of a poset is ${}^{c}\mathcal{D}$-subcomplete. Erné [2000] and note 154. Erné [2000] and note 154.

[**144 M**] Every $\mathcal{W}$-suprema preserving map on $\mathcal{W}$-complete posets preserves ${}^{c}\mathcal{D}$-surpema. Erné [2000] and note 154.

FORM 413. Every infinite set S is the union of a set, well-ordered by inclusion, of subsets which are non-equipollent to S. Erné [2000] and note 154.

FORM 414. Every $\mathcal{W}$-frame is a $\mathcal{D}$-frame. Erné [2000] and note 154.

FORM 415. Every $\mathcal{W}$-compactly generated complete lattice is algebraic. Erné [2000] and note 154.

FORM 416. Every non-compact topological space S is the union of a set that is well-ordered by inclusion and consists of open proper subsets of S. Erné [2000] and note 154.

Categories for the new forms

In ALGEBRAIC FORMS II. Lattices put [0 AT], [0 AU], [1 DH], [1 DI], [67 AB], [67 AC], [144 F] through [144 J], 414, 415

In MISCELLANEOUS FORMS put [144 B] through [144 E], 413

In ORDERING PRINCIPLES IV. Other Partial Ordering Properties put [1 DJ], [144 K] through [144 M]

In TOPOLOGY III. General Topology put 416