Fixed points of multifunctions on COTS WITH END POINTS *

Devender Kumar Kamboj, Vinod Kumar, Satbir Singh

October 4, 2013

ABSTRACT. We prove that if F and G are multifunctions from X to Y, with connected values, where X is connected, Y a space admitting a continuous bijection to a connected space Z with endpoints, and Z is T_0 whenever |Z| = 2 such that both F, G are either upper semicontinuous with compact values, or, are lower semicontinuous with one of F and G onto, then $F(w) \cap G(w) \neq \emptyset$ for some $w \in X$. We proved that if a multifunction F on a connected space X with endpoints such that X is T_0 whenever |X| = 2, has a connected multigraph, then there exists some $w \in X$ such that $w \in F(w)$.