CONSTRUCTIONS OF UNIVERSAL PARTS OF SOME COMPLETE GRAPHS

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Main result: Universal tth parts of K_n exist for each n and $t \leq 6$. Being universal means that respective t-packings of a part into K_n can leave all possible edge remainders R such that the size $|R|$ is the smallest possible. Due to recursion, the proof reduces to presenting universal parts for a few orders n. In particular, a fourth part of K_{11} and a sixth part of K_{15}, both universal, will be constructed. Then $|R| = 3$. Therefore the proof of either construction requires five packings only (since three edges can induce five nonisomorphic graphs only).