Abstract

It is well-known that cyclic codes have efficient encoding and decoding algorithms. In recent years, antiprimitive BCH codes have attracted a lot of attention. The objective of this paper is to study BCH codes of this type over finite field-s and analyse their parameters. Some lower bounds on the minimum distance of antiprimitive BCH codes are given. The BCH codes presented in this paper have good parameters in general, containing many optimal linear codes. In particular, two open problems about the minimum distance of BCH codes of this type are partially solved in this paper.