ABSTRACT

This research work is on the study of the flexural behaviour of rcc beam using steel and glass fiber. Fiber reinforced concrete are being carried out to enhance the properties of normal concrete. Fibers are widely used as one of the construction material for many centuries. Fibers are made from steel, plastic, glass and natural materials that are available in variety of shapes, sizes and thickness. A study has been proposed to be conducted in laboratory to investigate the engineering properties of fiber reinforced concrete by using mixture of steel fiber and glass fiber. The main aim of the present study is to compare the mechanical properties of steel fiber and glass fiber (i.e. various volume fractions of steel fibers with two different ratio 0.5%, 1%, and glass fibers with two different ratio 0.5%, 1%). By comparing the steel and glass fiber specimens the steel fiber with 1% has better mechanical properties, so we have choose 1% steel fiber content for our M20 grade concrete. In this study the mechanical properties of steel fiber and glass fiber concrete cubes and cylinders were investigated using M20 grade concrete and also concrete beam with 1% of steel fiber is tested.