Software Engineering I

One means of improving system reliability is to have three or more replicated systems and act on their majority output. Give two examples of failure that can be stopped by the mechanism, and two which cannot. At least one of each type should be illustrated by an actual case history or application. [12 marks]

An engineer attempts to improve the reliability of such a system further by multiversion programming – by having three separate systems coded by different teams and possibly in different languages. Discuss what might still go wrong. [8 marks]