

## 2010 Paper 7 Question 15

### Specification and Verification II

- (a) Describe the kinds of property that can be expressed in LTL, CTL, CTL\*, ITL and PSL. [6 marks]
- (b) What kind of properties are expressed by SEREs in PSL? Give an example of a SERE and explain its meaning. [4 marks]
- (c) It is sometimes said that engineers prefer LTL to CTL. Why might this be the case? [4 marks]
- (d) Are there properties that can be expressed in CTL that cannot be expressed in LTL? Justify your answer. [2 marks]
- (e) Are there properties that can be expressed in CTL that cannot be expressed in PSL? Justify your answer. [2 marks]
- (f) Are there properties that can be expressed in PSL that cannot be expressed in LTL? Justify your answer. [2 marks]