

2005 Paper 2 Question 7

Software Engineering I

A car manufacturer wishes to save weight and improve reliability by replacing most of the vehicle's wiring harness with a local area network. Systems such as engine management, anti-lock braking, traction control and stability control will thus share common platform components. Your task is to ensure that the safety of these systems, and of the vehicle electronics overall, is not impaired by this upgrade.

- (a) Describe the methodology you would adopt for the project, and justify your choice. [10 marks]
- (b) How would you then ensure that subsequent development of these subsystems – which you should assume are supplied by different subcontractors – does not compromise vehicle safety? [10 marks]