Name: Class: Mark:

A new compact computer has been created for use in conference centres to control presentation screens.

(a) The compact computer contains a bootloader. Explain the role of the bootloader on the computer. [2]

(b) The compact computer contains both an operating system and presentation software.

 When a presentation is running, the user may make a key press to advance the presentation.

 Describe the role and operation of interrupts in this situation. [3]

(c) In addition to hardware interrupts such as a keyboard press, software interrupts may
also occur. Give **two** examples of a software interrupt. [2]

(d) Sometimes, in the middle of a presentation, the computer freezes and needs to be restarted. A customer support assistant says that the firmware needs to be updated. Describe how updating the firmware may fix the problem. [3]

[Total 10 marks]