Practical Exam

I can’t get my player controller working.

I will be attempting for part-marks on the theoretical component of this part of the exam by explaining the implementations of the requested design patterns as if I successfully implemented them.  
  
Student Number 100785826  
1+0+0+7+8+5+8+2+6 = 37 = Odd  
  
Designated game: Pac-Man

**Question 1: Object pooling**

Object pooling is implemented using a singleton ghost manager script. This script creates 4 ghosts on startup from a prefab and disables each when Pac-Man manages to eat them until they respawn. The number of ghosts in the scene can be increased or decreased by calling the functions within the manager, addGhost() and removeGhost(index). Each ghost has an index within a list that the ghost manager script uses to keep track of active and inactive ghosts. It also uses this list to determine when all existing ghosts are active and it needs to instantiate a new one and add it to the list in the event that addGhost() is called.

This saves on performance especially when playing a round of Pac-Man where the number of ghosts has been increased, as the frequency of ghosts respawning and being eaten during the use of a Power Pellet is very high. The need to create new ghosts is removed, unless the maximum number of active ghosts is increased or surpassed.

**Question 2: Command design pattern**

Not attempted

**Question 7: Game management system**

Not attempted