Question 3:

In the future it is expected that class ComputerEquipment will be extended with additional operations. The present structure of a computer equipment is assumed not to change. It is also not desired to 'pollute' all the existing component classes with new operations.

Which design pattern would be suitable for this problem?

Solution:

The given situation presents a class *ComputerEquipment* that has already been used in other component classes. The easiest way to extend additional operations in *ComputerEquipment* class would be by implementing the **decorator pattern**. This pattern would allow us to add functionality to the existing one, without "polluting" the existing components. We will create an abstract wrapper class around *ComputerEquipment*.

For example, let's call it *EnhancedComputerEquipment* class. Its code would then look as follows:

```
abstract class EnhancedComputerEquipment extends ComputerEquipment{
      // new members and methods go here.
}
```