Operating Systems

(a) Describe with the aid of a diagram the structure of the Windows XP operating system. Sketch the functions of each component, and clearly indicate which parts execute in kernel mode and which in user mode. [6 marks]

(b) Compare and contrast the object namespace in Windows XP with the directory namespace of UNIX. [4 marks]

(c) Compare and contrast blocking, non-blocking and asynchronous I/O. [6 marks]

(d) Give four techniques which can improve I/O performance. [1 mark each]