

QUESTION

- (a) Describe the actions taken by an operating system when a programme opens a disc file.
- (b) Under what circumstances would you expect the **open** operation to fail ?
- (c) In many operating systems, a new file is not entered into the disc directory until, and unless, the programme which created it executes some form of **close** instruction. Explain why it is possible to use a file which does not appear in a directory, and comment on any advantages and disadvantages of this design. How must the system deal with a new file when (i) the file is explicitly **closed** ? (ii) the programme ends without closing the file ? (Describe only the normal operations - do not include provision for error handling.)