

QUESTION ?.

( a ) The most obvious feature of a memory model is the form of the address which it requires. Briefly describe the flat, segmented, and Linda memory models, give an example of an address in each case, and explain how the address identifies a location in memory.

( b ) A spreadsheet is a two-dimensional array of cells identified by their coordinates in the array. Any cell may be empty, or it may be occupied. An occupied cell contains an expression which can be evaluated : the expression may be a constant ( number, string, etc. ) or a computation which may refer to the contents of other cells. There is no limit on the size of the contents of a cell.

Describe a memory model appropriate to a spreadsheet, give an example of an address in the model, and explain how it identifies a location in memory.

( c ) Suggest how you could represent your spreadsheet memory model given an operating system which provides a segmented memory, and explain why you believe that your suggested representation is appropriate.