

Class test (#2)

Total points 3/5 ?

Date: September 22, 2020

Maximum marks = 5 (To be normalized to 3)

Expected time to answer 5 questions=5-7 minutes

Total time: 10 minutes

The respondent's email address (**f20181119@pilani.bits-pilani.ac.in**) was recorded on submission of this form.

0 of 0 points

Name *

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Questions 1-5

3 of 5 points

Jagged array is different from a multidimensional array supported in C-programming language in that 1/1

- ☐ The rows and columns of a jagged array are of same size
- ☒ The rows of jagged array need not be of same size
- ☐ The elements of the jagged array are of different sizes
- ☐ None of these



Consider the array in C language declared as `int A[10][5]`; If the array layout is 1/1 a row major form, then the address of array element `A[m][n]` is computed by adding the base address and few necessary locations to

- ☒ $m*5*\text{size}(\text{int}) + n*\text{size}(\text{int})$
- ☐ $m*\text{size}(\text{int}) + n*10*\text{size}(\text{int})$
- ☐ None of these
- ☐ $m*n*\text{size}(\text{int})$
- ☐ $m*10*\text{size}(\text{int}) + n*5*\text{size}(\text{int})$

Consider a single dimensional array variable A to be declared of type array[L 0/1 .. H] of real, where L and H are the lower and upper range values defining the subrange. The call stack grows upwards towards low end of the memory addresses. The address of `A[k]` is computed as below

- ☒ $\text{Base} + k*\text{size}(\text{real}) - L*\text{size}(\text{real})$
- ☐ $\text{Base} + k*\text{size}(\text{real})*(H-L)$
- ☐ $\text{Base} - k*\text{size}(\text{real}) + L*\text{size}(\text{real})$
- ☐ $\text{Base} - k*\text{size}(\text{real}) + H*\text{size}(\text{real})$
- ☐ None of these

Correct answer

- ☒ $\text{Base} - k*\text{size}(\text{real}) + L*\text{size}(\text{real})$



Consider a two dimensional array variable A to be declared of type array[L1 .. 0/1 H1] [L2 ..H2] of real, where L1 and H1 are the lower and upper range values defining the subrange in one dimension defining the rows. Similarly L2 and H2 are the lower and upper range values defining the subrange in the other dimension of two dimensional array A defining the columns of the array. The first element of the array is accesses as A[L1][L2]. The call stack grows downwards towards HIGH end of memory addresses. If the compile time layout of the two dimensional array is row major, then the address of A[k][p] is computed as below

- ☐ None of these
- ☐ $\text{Base} + ((k-L1) + (p-L2)) * (H2-L2+1) * \text{size}(\text{real})$
- ☐ $\text{Base} + (k-L1) * (H2-L2+1) * \text{size}(\text{real}) + (p-L2) * \text{size}(\text{real})$
- ☒ $\text{Base} + (p-L2) * (H1-L1+1) * \text{size}(\text{real}) + (k-L1) * \text{size}(\text{real})$

Correct answer

- ☒ $\text{Base} + (k-L1) * (H2-L2+1) * \text{size}(\text{real}) + (p-L2) * \text{size}(\text{real})$

Which languages support concatenation operation on single dimension arrays?

1/1

- ☒ Python, Ada and Ruby
- ☐ Python, C and C#
- ☐ Java, C and Python
- ☐ None of these

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