Class test (#3)

Total points 5/5

Date: September 29, 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

ID *

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Questions 1-5 5 of 5 points

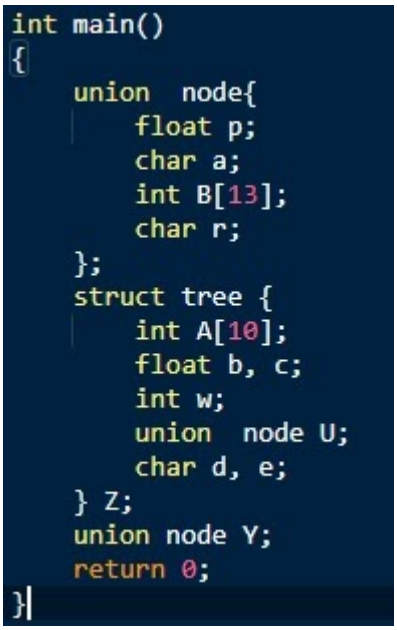
Consider the following record types in a C-like language.struct point { float x,y;}; struct triangle { struct point P1, P2, P3;}; struct triangle A[10];The layout of an array of records is determined at 1/1

- (●) Compile time if the index of the array is an integer value irrespective of triangle using point structure
- ( ) Run time if the record definition for triangle does not use that of point structure and the index of the array is an integer value
- ( ) None of these
- ( ) Run time if the index of the array is an integer value irrespective of triangle using point structure
- ( ) Compile time if the record definition for triangle does not use that of point structure and the index of the array is an integer value

A record variable fields are located in the memory 1/1

- ( ) None of these
- ( ) Near the end of the activation record
- (●) In contiguous locations
- ( ) In distributed locations

Consider the following code written in C language. If each character, integer and floating point data requires 1, 2 and 4 memory locations respectively, then 1/1



```c
int main()
{
    union  node{
        float p;
        char a;
        int B[13];
        char r;
    };
    struct tree {
        int A[10];
        float b, c;
        int w;
        union  node U;
        char d, e;
    } Z;
    union node Y;
    return 0;
}
```

- ○ None of these
- ○ The total memory allocated to variables Y and Z are 32 and 64 respectively.
- ◉ The total memory allocated to variables Y and Z are 26 and 58 respectively.
- ○ The total memory allocated to variables Y and Z are 56 and 32 respectively.

Given a code segment in C programming languagestruct states { char name[20]; int population; float happiness_index; }struct states a;The type expression best described for type checking for the variable a is 1/1

- (array, char) x 20 x int x float
- char x 20 x int x float x array
- (char, 20) x int x float
- array(char, 20) x int x float
- None of these

The amount of memory allocated to a record variable is 1/1

- None of these
- Sum of the sizes of individual fields in the record type definition
- Minimum of the sizes of individual fields in the record type definition
- Maximum of the sizes of individual fields in the record type definition