

PG-DESD - C Programming Twisters Activity

1. What will be the output of following program?

```
#include <stdio.h>
struct student
{
    char *name[2];
    int s;
    char b;
}s = {"Sun", "Beam", 0, 1};
int main()
{
    printf("%d", sizeof(s));
    return 0;
}
```

2. What will be the output of following program?

```
#include <stdio.h>
struct x
{
    int i; int j; int k;
};
int main(void)
{
    struct x *p, arr[3];
    p = &arr[0];
    ++p;
    printf("%d", &(arr[0].j) - p);
    return 0;
}
```

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3. What will be the output of following program?

```
#include <stdio.h>
int main(void)
{
    struct a
    {
        int a;
        struct b
        {
            int a; char b;
        } b;
    } x[] = {1, 'a', 'x', 'A', 4, 'b'};

    printf("%d", -x[1].a + x[0].b.a + x[1].b.a);
    return 0;
}
```

4. What will be the output of following program?

```
#include <stdio.h>
struct s1
{
    struct {
        int x;
        struct s { int x;}s2;
        struct s *s;}s3;
}y={ 10 };

int main(void)
{
    y.s3.s = &y.s3.s2;
    printf("%d", y.s3.s->x);
    return 0;
}
```

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5. What will be the output of following program?

```
#include<stdio.h>
union u
{
    int x[3];
    char y[5];
}u[3];

int main()
{
    printf("%d", sizeof(u));
    return 0;
}
```

6. What will be the output of following program?

```
#include<stdio.h>
struct s
{
    int x[10];
};
union u
{
    int *x;
    struct s *y[2];
}u;
int main(void)
{
    printf("%d", sizeof(u));
    return 0;
}
```