

ASSIGNMENT

1. Write a function to swap two numbers (using pointer). Print swapped numbers in main().
2. Write a function to divide two integers. Function should return 1, if it is successful. It should return 0, if it is failed (trying to divide by zero). Function should also return quotient and remainder (via pointers).
`int divide(int numerator, int denominator, int *quotient, int *remainder);`
3. Write a program to accept marks of three subjects, calculate its total and average. (Using 1-D array)

1. #include <stdio.h>

```
int main(void)
{
    int a = 1;
    int *p = &a;
    int *q = p;
    *p = *p + *q;
    printf("%d%d%d", *p ,a, *q);
    return 0;
}
```

- A. 111
- B. 222
- C. 211
- D. 221

Answer: B

2. #include <stdio.h>

```
void callbyAddress1(int *x)
{
    x=x+10;
}
```

```
void callbyAddress2(int *x)
{
    *x=*x+10;
}
```

```
int main(void)
{
    int a=10;
    printf(" %d ",a);
    callbyAddress1(&a);
    printf(" %d ",a);
    callbyAddress2(&a);
    printf(" %d ",a);
    callbyAddress1(&a);
    printf(" %d ",a);
    callbyAddress2(&a);
    printf(" %d ",a);
    return 0;
}
```

- A. 10 10 20 20 30
- B. 10 10 10 10 10
- C. 10 20 30 40 50
- D. compile time error

Answer: A

3. #include <stdio.h>

```
int main(void)
{
    int arr1[];
    int arr2[] = { 11, 22, 33 };
    int arr3[3] = { };
    int arr4[2] = { 10, 20, 30 };
    int arr5[6];
    int [] arr6;
    return 0;
}
```

Which variable declarations are wrong?

- A. arr1, arr3, arr4, arr6
- B. arr1, arr3, arr6
- C. arr1, arr4, arr6
- D. None of these

Answer: C

4. #include <stdio.h>

```
int main(void)
{
    double arr[3];
    char *p1, **p2;

    printf("%u, ", sizeof(arr) + sizeof(arr[0]));

    printf("%u\n", sizeof(*p1) + sizeof(*p2) + sizeof(p1) +
sizeof(p2));

    return 0;
}
```

Note: consider 64-bit compiler.

- A. 32, 25
- B. 32, 28
- C. 64, 25
- D. None of these

Answer: A



SUNBEAM