

COEN 10 - Practice VIII

Solutions on Wednesday

Use C syntax!

1. What does the code below output?

```
char str[10] = "abcde";
char *p = str;

*p = 'M'
p += 2;
*p = 'N';

printf ("%s\n", str);
printf ("%s\n", p);
```

2. What does the code below output?

```
char str[10] = "abcde";
char *p = str;
char *q;

q = p + 2;
*p = 'x'
*(p + 1) = 'y';
*q = '\0';
q++;

printf ("%s\n", str);
printf ("%s\n", p);
printf ("%s\n", q);
```

3. What does function a output?

```
void
a ( )
{
    int x = 2;
    int y = 3;

    b (x, &y);
    printf ("%d, %d", x, y);
}

void
```

```
b (int z, int *y)
{
    int x = 4;

    *y = x + z;
    x += 5;
    z -= 10;
    return;
}
```

4. Write the function to swap the values pointed by pointers p and q, which are int pointers received as arguments.
5. Write the function to traverse string str with a pointer, substituting every occurrence of character ch1 by character ch2. Variables str, ch1, and ch2 are received as arguments.
6. Write the function to traverse string str with a pointer and return the number of occurrences of character ch. Variables str and ch are received as arguments.
7. Write a function to traverse global string array strs (size MxN) with a pointer and return the number of strings that start and end with a capital letter. Do not use strlen!
8. Write the function to traverse int array x (size M) with a pointer and return the average of all the elements. Array x is a global variable and M is a constant.