COM2002 INTERMEDIATE PROGRAMMING
2024 – 2025 SPRING
C PROGRAMMING EXERCISE - 03

Topic : Strings

Exercise-1 : What is the output of the following statement?

```
printf("When you come\nto a fork\nin the road, \ntake it.  \
      --Yogi Berra");
```

Exercise-2 : Declare a string variable with the following initial value.

```
Welcome to course
```

Exercise-3 : Declare a pointer variable with the following initial value.

```
Welcome to course
```

Exercise-4 : Call the `printf` function to display string variable `str`.

Exercise-5 : Call the `puts` function to display string variable `str`.

Exercise-6 : Given the declarations

```
char str[] = "Welcome to course!";
```

What is the output of the following statement?

```
printf("%.8s\n", str);
printf("%-.8s\n", str);
printf("%20s\n", str);
printf("%-20s\n", str);
printf("%20.8s\n", str);
printf("%-20.8s\n", str);
```

Exercise-7 : The user enters the line

```
Welcome to course
```

What will be stored in `str`?

```
scanf("%s", str);
```

Exercise-8 : The user enters the line

```
Welcome to course
```

What will be stored in `str`?

```
gets("%s", str);
```

Exercise-9 : What is the output of the following code fragment?

```
char str1[20], str2[20];
strcpy(str1, "CSE2002");
strcpy(str2, "Programming");
strcat(str1, " ");
strcat(str1, strcat(str2, " II"));
printf("%s", str1);
```

Exercise-10 : The definition of the `find_middle` is

```
char *find_middle(char a[], int n) {
      return &a[n / 2];
}
```

Call the `find_middle` function to find the middle element in row 5 of the two-dimensional array:

```
char planets[][8] = { "Mercury", "Venus", "Earth", "Mars", "Jupiter",
"Saturn", "Uranus", "Neptune", "Pluto" };
```