

# Department of Computer Science and Engineering

## Jaypee University of Engineering and Technology

### 18B17CI373 – Advanced Programming Lab-I

#### Lab Exercise 6

Write python scripts of following questions using functions .

1. Calculate simple interest.
2. Find the area of a triangle.
3. Calculate compound interest.
4. Find the value of force when mass of a body and its acceleration is given.
5. Calculate the factorial of the given number
5. Convert a temperature from Celsius to Fahrenheit.
6. Convert a temperature from Fahrenheit to Celsius.
7. Compute the area of the circle, when its diameter is given.
8. Compute the area of a cylinder, when its height and diameter is given.
9. Compute the volume of a cylinder, when its height and diameter is given.
10. Compute the area of a rectangular prism, when its all sides are given.
11. Compute the volume of a rectangular prism, when its all sides are given.
12. Write a python function to print following shapes (Hint: to print more than one value on a line, you can print a comma separated sequence, print one symbol at a time, don't print whole line in a single print statement)



13. Write a python function to print following shape



14. Repeat above Python script to print shapes other than square (Optional).

15. Write a function named **rightjustify** that takes a string named s as a parameter and prints the string with enough leading spaces.

16. A function object is a value you can assign to a variable or pass as an argument. For example, **do\_twice** is a function that takes a function object as an argument and calls it twice:

```
def do_twice(f):
```

```
    f()
```

```
    f()
```

Here's an example that uses do\_twice to call a function named print\_spam twice.

```
def print_spam():
```

```
    print 'spam'
```

```
do_twice(print_spam)
```

- A. Type this example into a script and test it.
  - B. Modify `do_twice` so that it takes two arguments, a function object and a value, and calls the function twice, passing the value as an argument.
  - C. Write a more general version of `print_sp`, called `print_2ice`, which takes a string as a parameter and prints it twice.
  - D. Use the modified version of `do_2ice` to call `print_2ice` twice, passing 'spam' as an argument.
17. Write a function to print number 1 to 10 in ascending or descending order, based on user choice.