***Lab 5– Functions***

1. Write a program to prompt the user for a value for radius in the main program and calculate the diameter, circumference or area of a circle based on user option. Use functions to perform calculation.

*Formula: diameter [2 x radius] ; circumference [2 PI x radius] ; area [PI radius2]*

**Sample input-output:**

Enter value for radius (cm): **10**

Calculate:

1. rea

(C)ircumference

(D)iameter

Option: A

The area of the circle in cm is 314.2

1. Write a program using functions, that takes an integer value between 1 and 9999 and returns the number with its digits reversed.

*Use the function prototype* ***int reverseDigit (int);***

**Sample input-output:**

Enter a number between 1 and 9999: 9273

The number with its digits reversed is: 3729

1. One large detergent company pays its salespeople on a commission basis. The salespeople receive a salary of RM100 per week plus 15% of their gross sales for that week. For example, a salesperson who sells RM5000 worth of detergent in a week receives RM100 plus 15% of RM5000, or a total of RM850. Write a program in R, using functions that will input each salesperson’s gross sales for last week and will calculate and display that person’s sales earnings.

*Use the function prototype* ***float calculate\_sales (float);***

**Sample input-output:**

Enter sales: RM**5000**

Salary is RM850.00

1. Write a program to prompt the user for an integer. Calculate the factorial of that integer using function.

Formula: 4! = 1X2X3X4

**Sample input-output:**

Enter an integer: 7

7! = 5040