# POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN) 

Term-End Practical Examination

December, 2017

## MLIL-007 : PROGRAMMING

Time Allowed : $\mathbf{2}$ hours
Maximum Marks : 50
(Practical Work : 40
Vioa Voce : 10)
(Weightage : 40\%)
General Instructions:
(i) This question paper comprises three parts. Attempt any one part. Answer all the questions from the attempted part.
(ii) Show the output to your examiner.
(iii) Save your output in your system which will be checked by the examiner.
(iv) Printout of the answers wherever required should be taken in a sheet duly signed by RD with his/her stamp. Write your Roll No., Study Centre and Date of examination on these sheets.
(v) Candidates are not permitted to use any manual/ handbook in carrying out the practical.

## PART - A

(C++)

1. Write a program in $\mathrm{C}++$ to create a class named 20

Emp having suitable data members and member functions. Write a constructor and a destructor for Emp class. Also, write a method "Retire_year" which returns the year of retirement of the employee.

Consider the age of retirement for each employee is 62 years.

Note : Make suitable assumptions, if necessary.
2. Write a C++ program check whether the given number is an armstrong number or not.

> Note: Armstrong number is a number whose sum of the cube of its digits is equal to the number itself. e.g. $153=1^{3}+5^{3}+3^{3}$.

## PART - B

(Java)

1. Write a program in Java that accepts a string as 20
input from the user and list all words in the string
having atleast one vowel.
2. Write a program in Java to calculate the factorial 20
of a given number by the user.

## PART - C

## (Visual Basic)

1. Design and write a program in VB, which converts
the upper case letters to lower case letter and vice-versa. Design the GUI as given below :

2. Create a VB application with the following $\mathbf{2 0}$ four options:
(a) Addition
(b) Subtraction
(c) Multiplication
(d) Division

Whenever, user opt for any option it asks for two numbers from the user, perform the mathematical operation and display the result on screen. Create an appropriate GUI.

