

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

Term-End Examination

June, 2016

00042

MLI-007 : PROGRAMMING

Time : 2 hours

Maximum Marks : 50

(Weightage : 40%)

Note : *All parts carry equal marks. Answer all questions. All questions carry equal marks. Illustrate your answers with suitable examples and diagrams, wherever necessary. Write the relevant question number before writing the answer.*

PART - A

(C++)

1.1 Explain the paradigm of object Oriented Programming with a suitable example.

OR

1.2 Discuss the significance of private and public member functions of a class with suitable example for each.

2.1 Draw a flow chart and write an algorithm that accepts any three numbers and find the smallest number among them.

OR

- 2.2 "A class is an abstract data type". Justify the statement with the help of an example. Also, declare some objects for a defined class.
- 3.1 Compare and Contrast between single inheritance and multiple inheritance. Also, give an example in C++ for each.

OR

- 3.2 Write a program in C++ to implement a class MSUBTRACT to Subtract two matrices of size $M \times N$. Write suitable output function to demonstrate the above operation on matrices.
- 4.1 What is meant by 'polymorphism' ? Illustrate the concept with the help of a C++ program.

OR

- 4.2 Explain the functionality of the logical operators in C++, giving an example for each.
- 5.0 Write short notes (about 250 words each) on **any two** of the following :
- (a) Modular Programming
 - (b) Templates
 - (c) Overloading feature of OOP's
 - (d) Constructor

PART - B

(JAVA)

1.1 Define a constructor ? How are they different from a member function ? Explain with an example using JAVA program.

OR

1.2 What is abstract data type ? List the various data types in Java along with the importance of each.

2.1 Write a Java program which accepts a string and replaces each character of a string to its next character.

Example : INPUT : JAVA, OUTPUT : KBWB.

OR

2.2 Write a Java program which accepts name, roll number and marks of 5 students for a course. It should display the name and roll number of the student with highest marks.

3.1 What is "this" Keyword ? Explain its use with the help of a JAVA program.

OR

3.2 Explain class, abstract class and interface in Java. Also, give an example for each.

4.1 Describe the different ways of handling exceptions in Java. Also, give an example for each.

OR

4.2 What is polymorphism in Java ? Discuss its advantages using examples.

- 5.0 Write short notes (about 250 words each) on any two of the following :
- (a) Inheritance
 - (b) Finally Keyword
 - (c) Type Casting
 - (d) Characteristics of object oriented programming

PART - C
(Visual Basic)

- 1.1 Explain the important features and functions of IDE (Integrated Development Environment) of Visual Basic.

OR

- 1.2 Differentiate between 'passing by value' and 'passing by reference' in Visual Basic procedures. Also, show the declaration of each case.

- 2.1 Write an event procedure that accept a string and check whether the given string is a palindrome or not.

OR

- 2.2 Draw and explain the working of client/server architecture.

- 3.1 Explain the following functions along with an example for each :

- (a) CDbI (b) Pmt function
- (c) DDB (d) Str (e) U Case \$

OR

- 3.2 Write the step by step procedure for creating a Menu Bar in Visual Basic with the help of an example. Code segment in VB.

4.1 Define an event. List any seven events and their basic purpose and syntax in VB programming.

OR

4.2 Why Data aware controls are used in VB ? Explain the importance of DB list, DB combo and DB Grid controls in VB programming.

5.0 Write short notes (about **250** words each) on **any two** of the following :

- (a) Windows API
 - (b) Embedded Object
 - (c) Debug Window
 - (d) Control Array
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