

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

Term-End Examination

December, 2013

MLI-007 : PROGRAMMING

Time : 2 hours

Maximum Marks : 50

(Weightage : 40)

Note : (i) *There are three parts in this question paper.*

Part A : C++

Part B : Java

Part C : Visual Basic

- (ii) *Candidates are advised to attempt only the part opted by them.*
- (iii) *Mention clearly the part attempted before answering.*
- (iv) *All parts carry equal marks.*
- (v) *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.*
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PART-A : (C++)

1.1 Explain Procedural and Modular Programming paradigms. What are the differences between them.

OR

1.2 What is Data Abstraction ? Give an example. Does C++ support it.

2.1 Define the term "Class". Give an example. What is meant by static class ?

OR

2.2 What are Private and Public member functions ? Explain the differences between them.

3.1 What is meant by operator overloading ? How are Increment and Decrement operators overloaded ? Give examples.

OR

3.2 List logical and relational operators in C++ and describe its use with the help of an example.

4.1 What is meant by Base Class ? What is meant by Derived Class ? Give examples.

OR

4.2 Explain Private and Public inheritance. What are the differences between them ?

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

- (a) Scope Resolution Operator
- (b) Templates
- (c) Exception Handling
- (d) Friend Function

PART-B : JAVA

- 1.1 Distinguish between Applets and Applications. Also, write the common characteristics of Applets and Applications.

OR

- 1.2 Write a short note on any five JAVA libraries.

- 2.1 Write the size and range of values of any five primitive data types of JAVA.

OR

- 2.2 List bitwise and logical operators in JAVA.

- 3.1 What are Constructors, Destructors ? How are they declared in JAVA ? Give an example for each.

OR

- 3.2 How is inheritance achieved in Java ? Explain with an example.

- 4.1 What are Exceptions ? Explain the following Java Classes :

- (a) java.lang.Error
- (b) java.lang.Exception

OR

- 4.2 Explain the process of using **try** and **catch** with an example.

- 5.0 Write short notes on *any two* of the following :

- (a) Adding classes to existing packages
- (b) Interfaces
- (c) Type casting
- (d) Static variables

PART-C : VISUAL BASIC

1.1 List and explain the five windows that are displayed by Visual Basic when started.

OR

1.2 List any five data types in VB with examples.

2.1 Explain any five string functions.

OR

2.2 Explain any five numeric functions.

3.1 Draw a form-layout of a form in VB for book-issue interface in a library management system package.

Note : No need of writing any coding for the above interface.

OR

3.2 Explain any five properties of a form.

4.1 What is a Custom Control ? How are they loaded on the forms ? Explain with the help of an example.

OR

4.2 What are **do event** functions ? Give an example ?

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

- (a) Data Manager
- (b) Data aware control
- (c) OLE
- (d) Active-X Controls
