

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

**Term-End Examination**

**June, 2021**

**MLI-007 : PROGRAMMING**

*Time : 2 hours*

*Maximum Marks : 50*

*(Weightage : 40%)*

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**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** What is an Object-Oriented Programme ? How is it different from Procedural Programming ?

**OR**

**1.2** With the help of an example system, explain the System Development Life Cycle (SDLC).

**2.1** Write a C++ program to take “N” integers as input and display their sum.

**OR**

**2.2** With the help of an example C++ program segment, explain the use of Constructors and Destructors in programming.

**3.1** Define Polymorphism. Give an example C++ program to illustrate it. Explain its use in programming.

**OR**

**3.2** “Scope Resolution Operator specifies the scope of a function i.e., to which class it is associated.” Justify the statement with the help of an example C++ program.

**4.1** Write an algorithm and draw corresponding flowchart to find the factorial of a given number.

**OR**

**4.2** What is meant by “Overloading” ? Explain function overloading with an example.

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

- (a) Abstraction
- (b) Virtual Function
- (c) Goto Statement
- (d) Modularity

## **PART B**

### **JAVA**

- 1.1** Write an algorithm and draw a corresponding flowchart to find the largest number among the three given numbers.

#### **OR**

- 1.2** What are Special Purpose Languages ? Write short notes on (a) PERL, and (b) HTML.

- 2.1** With the help of an example program segment for each, explain the following Looping Constructs of JAVA :

- (a) For
- (b) Switch ... case

#### **OR**

- 2.2** With the help of an example, explain how multiple exceptions are handled in Java using “Try and Catch”.

- 3.1** Write a program in Java to search for an already existing book against the input given by the user and display the status of the rack/shelf, subject-category, section, etc.

**Note** : Assumptions can be made, wherever necessary.

#### **OR**

- 3.2** Explain the concept of adding classes to the existing package, with an illustrative program.

**4.1** Explain Static Variables and Methods, with appropriate examples.

**OR**

**4.2** Define a Wrapper Class. Give an example of Wrapper Class and explain.

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

- (a) Access Controls (Protected, Public, Private)
- (b) Inner Classes
- (c) Inheritance

**PART C**  
**VISUAL BASIC**

**1.1** Define a variable. What are the rules that need to be followed while naming the variables ? Give any four example variable names.

**OR**

**1.2** Why is VB-IDE called a Rapid Application Development Tool ? Give the essential features of VB-IDE (Integrated Development Environment).

**2.1** Explain the following controls, their use and any *two* associated events :

- (a) List Box
- (b) Command Button
- (c) Option Button
- (d) Image

**OR**

**2.2** Write an event procedure to generate multiplication table of seven. Select appropriate controls on the form.

**3.1** Write step-by-step procedure to create a menu identical to a simple “**Notepad**” using Menu option.

**Note** : No need of any programming. Give the layout of its interface.

**OR**

**3.2** Draw and explain the working of client/server architecture.

**4.1** What is Object Linking and Embedding (OLE) ?  
Briefly discuss.

**OR**

**4.2** Write an event procedure to find the sum of  
“n” natural numbers.

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

- (a) Multi-faceted Role of Systems Analyst
  - (b) ActiveX DLL
  - (c) Testing Phase in SDLC
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