MLI-007

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2021

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.

P. T. O.

(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. The questions are not case-sensitive.

Part A : C++

1. List and explain the characteristics of a system.

Or

List and explain any **three** ways in which systems are classified.

2. Write an algorithm and draw a corresponding flowchart to find the smallest number among three given numbers.

Or

Write short notes on the following :

(i)   Recursion

(ii) GOTO statement

3. Explain the following statements of C++ with the help of an example for each :

(a) WHILE

(b) IF

(c) FOR

Or

Write a program in C++ to count the number of alphanumeric characters in a given string. Write appropriate class, data members and member functions.

4. Define a *Public* function. Give an example.

Or

With the help of any C++ program, explain the purpose of virtual function.

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

(a) Pure Virtual Function

(b) Function Overloading

(c) PRIVATE

(d) Cin

Part B : Java

1. Explain the following :

(i)   Special Purpose Languages

(ii) High Level Languages

Or

What is a DFD ? Explain with an example.

2. Write a program in Java to perform "$a * b$" where "a" and "b" are integers.

Or

Define "Thread". Also, write a program segment in Java that demonstrates the usage of thread.

3. Write a program in Java that accepts a string as input and counts the number of integers in it.

Or

What is meant by Polymorphism ? How is it different from Inheritance ? Explain with suitable examples.

4. Write a short note on Encapsulation in Java. Illustrate this concept with an example.

Or

Explain the access control modifier "protected" in Java with an example.

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

(a) Static

(b) Overriding

(c) Interface

(d) Dictionary

Part C : Visual Basic

1. Explain the IDE of Visual Basic.

Or

Explain any *five* controls of Visual Basic available in tool box.

P. T. O.

2. What is meant by OLE ? Explain the process of creating an OLE object in Visual Basic.

Or

Write an event procedure that accepts a string and checks whether the string is having at least *one* vowel.

3. Explain the process of updating a record in the table.

Or

Explain client/server architecture.

4. Explain the following functions with an example for each :

(i) Pmt

(ii) ABS

Or

Explain the following form events of VB with an example for each :

(i) Unload

(ii) Dragover

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

(a) Control Arrays

(b) Windows API

(c) RAD

(d) Active X controls

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