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MLI-007

00330

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

December, 2012

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.*

PART-A

1.1 What is dynamic binding? How is dynamic binding used to implement run time polymorphism.?

OR

1.2 Compare and contrast between fourth generation programming languages and third generation programming languages. Give an example for each.

2.1 What is meant by exception in C++ and how are they handled? Explain with the help of an example.

OR

2.2 Draw a flow chart and write an algorithm that accepts any character or number and arrange in ascending order by their ASCII value

3.1 What is static variable and a static junction? Explain using an example for each.

OR

3.2 Demonstrate the use of ***"inline"*** junction. Also, write the advantages and disadvantages of using it in C++ programming.

4.1 Write a program in C++ to implement a class *loan* having data members like Principle, Rate of interest, period of loan. Calculate the EMI schedule for loan through a program.

OR

4.2 Write a program in C++ to implement a class *Grade Card* that accepts the student details for generating Grade Card like Name, Enrolment No, Programme, Courses, and marks obtained, maximum marks in each course, etc. Make the necessary calculations and print the Grade Card of students.

Note: make and state suitable assumptions, if any.

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

(a) Nested Class

(b) Friend Function

(c) Encapsulation

(d) Templates

PART - B

1.1 Write differences and similarities between 'Applets' and 'Applications' in JAVA.

OR

1.2 Define encapsulation. How does Java ensure restricted access to the data members of a class ? Explain.

2.1 Write a program in JAVA to point the even numbers from 0 to n (n to be given by the user as input to the program)

OR

2.2 What is the difference between keywords *this* and *super* ? Also, write a code segment as an example for each.

3.1 What are recursive functions ? Write a program in Java to compute factorial of a number using recursive function.

OR

3.2 Write a program in Java to create a new exception *NegNoException.* This exception is thrown if the number passed to the method 'Demo' defined in the program is a negative number.

4.1 Can we refer a subclass object by a superclass variable ? Explain with the help of an example.

OR

4.2 Explain the use of package in JAVA with the help of a suitable example.

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

(a) Relational operators in JAVA

(b) Type Casting

(c) Multithreading

(d) File Handling

PART- C

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

OR

1.2 Explain different applications of OLE with examples.

2.1 Distinguish between fixed and dynamic arrays Also, give an example for each.

OR

2.2 What is a significance of Data Control ? How is this used? Explain.

3.1 Differentiate between 'passing by value' and 'passing arguments by reference' in VB procedures? Also, write the declaration in each case.

OR

3.2 For the following controls of VB, mention their use on the forms long with various (atleast two) events associated with them.

(a) Text Box

(b) Command Button

(c) Frame Control

(d) List Box

4.1 Write an event procedure to implement a simple calculator to perform Addition, Subtraction, Multiplication and Division operations.

OR

4.2 Write an event procedure that accepts an integer 'n' as input and compute the square of it.
Note : n>D. Use appropriate controls on the form

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

(a) Flex Grid Control
(b) Active X Control
(c) VB script
(d) Record set