POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

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 answer with suitable examples and diagrams, wherever necessary. Write the relevant question number before writing the answer.

POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

PART-A (C++)

Term-End Examination

MLI-007 : PROGRAMMING

Time : 2 Hours] *[Maximum : Marks : 50*

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

1. Write on algorithm and draw a corresponding how chart to count the number of even numbers in a given list of "n" integers.

    OR

    Describe the object oriented features of C++.

2. Write the syntax for the following control statements along with a sample code-segment for each:
    (i)   For loop
    (ii) While
    (iii) Switch statement

    OR

    Define operator overloading. Write the help of an example program using C++, explain its role in application development.

3. Explain the following access specifics with an example for each:
   (a) Private
   (b) Public
   (c) Protected

OR

Define Inheritance. With the help of an example program in C++, explain single inheritance features.

4. Explain the role of "constructors" and "destructors" in a class of C++ programming. Give an example for each.

OR

Write a class CONCATE in C++ with appropriate data members and member functions to take 2 strings from Input and display the cocatenated string.

5. Write short notes (about 250 words each) on <u>any</u> <u>two</u> of the following:
   (a) Procedural programming
   (b) Increment and Decrement
   (c) Nested if statement
   (d) Exception Hadling in C++.

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OST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

PART-B (JAVA)

Term-End Examination

MLI-007 : PROGRAMMING

Time : 2 Hours] *[Maximum : Marks : 50*

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

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1. Write an algorithm and draw a corresponding flow chart to take 2 integer an input and display whether the resultant sum of then is either an "odd" or "even" number.

OR

Draw a dataflow diagram (DFD) depicting the "Term End Examination (TEE)" process of PGDLAN.

Note: Assumption can be mode wherever neccessary.

2. With the help of appropriate examples explain the declaration of integer and string arrays along with initralization of values.

OR

In JAVA, inheritance is achieved by using "extends" keyword. With the help of a code segment in JAVA, explain the inheritance concept.

3. Explain the following CLASSES with an example for each:

(a) WRAPPER CLASSES

(b) INNER CLASSES

OR

Explain how to handle multiple exceptions in JAVA using TRY & CATCH. Give an example.

4. Write program in JAVA to enter (data-entry the list of new books in appropriate category (social sciences, Sciences Engineering). select relevant data members and method.

OR

Define packages in JAVA. How to create them? Explain with the help of an example.

5. Write short notes (about 250 words each) on <u>any two</u> of the following:

(a) Interfaces and their creation

(b) Uses-defined exceptions

(c) Access speficies : Private Public and protected

(d) Instance - of operator.

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POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Examination

Part C : Visual Basic

MLI-007 : PROGRAMMING

Time : 2 Hours]   *[Maximum : Marks : 50*

(Weightage : 40%)

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

1. Define a programming of language. Explain the features of procedural programming language. Give two examples.

OR

With the help of an example application explain the concept of modularity to solve a complex problem. Also list down the tentative modules of the application.

2. Write an algorithm and draw a corresponding flow chart to the sum and average of first "n" natural numbers.

OR

Draw a data flow diagram regarding the processes and data flow involved in a "Study Centre" of IGNOU.

3. Write an event procedure to calculate the total marks average and grade of PGDLAN courses. Use appropriate controls on the form to receive inputs and display the output Assumptions can be made wherever necessary.

OR

What is Data-aware control? What are the roles of Db list, Db combo and Db grid controls respectively when placed on a form.

4. Write an event procedure to illustrate the use of:
   (i) Switch case statement
   (ii) If .... else statement

OR

What is the purpose of Indexes in tables? Write the steps for creating Indexes from the table editor dialog box.

5. Write short notes (about 250 words each) on <u>any two</u> of the following:
   (a) System development life cycle.
   (b) Role of a systems analyst

(c) Data types in visual basic

(d) While .... wend statement along with its syntex and use in VB programming.

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