

2. Briefly, explain the difference between C and C++, Also discuss features of C++ Development Environment.
3. Write a C++ program to implement matrix class. Define a member function to transpose the matrix.
4. Explain the following terms, briefly:-
 - (i) break and continue
 - (ii) if-else and switch statements
 - (iii) Recursion vs. iteration
5. What is function overloading? Write an object oriented program to demonstrate function overloading.
6. What are the different function calling mechanisms? Demonstrate each one separately with the help of suitable program or program segments.
7. What is exception handling? Write a program to demonstrate exception handling.
8. Write a program in C++ to demonstrate how to read data from a file and display the same on the screen
9. Explain the following terms in detail.
 - (i) template
 - (ii) virtual function and pure virtual function examples
 - (iii) examples for comparing and substituting string
10. Define a class Bank account. Define constructors to open an account. Define method to deposit, withdraw and check balance.

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2018

Time : 3 hours

Full Marks : 80

Candidates are required to give their answers in their own words as far as possible.

The questions are of equal value.

Answer any five questions, in which Q.No. 1 is compulsory.

1. Fill in the blanks with the most appropriate answer.
 - (i) Assume class TEST. Which of the following statements is/are responsible to invoke copy constructor?
 - (a) TEST T2(T1)
 - (b) TEST T4=T1
 - (c) T2 = T1
 - (d) both (a) and (b)
 - (ii)refers to the act of representing only essential features without including the background details.
 - (a) Data Hiding
 - (b) Data Encapsulation
 - (c) Data Abstraction
 - (d) All of these
 - (iii) In case of inheritance where both base and derived class are having constructor and destructor, then which of the following are true?
 - (1) Constructors are executed in their order of derivation

(2) Constructors are executed in reverse order of derivation

(3) Destructors are executed in their order of derivation

(4) Destructors are executed in reverse order of derivation

(a) Only (2), (4) (b) Only (1), (3)

(c) Only (1), (4) (d) Only (2), (3)

(iv) Which of the following are member dereferencing operators in CPP?

1. *

2. ::

3. ->*

4. ::*

5. ->

(a) Only 1, 3, 4 (b) Only 1 and 5

(c) Only 3 and 4 (d) Only 3, 4, 5

(v) Classes in CPP are

(a) Derived data types (b) User defined data types

(c) built-in data types (d) All of these

(vi) If the derived class is struct, then default visibility mode is.....

(a) public (b) protected

(c) private (d) struct can't inherit class

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(vii) In a program, If there exist a function template with two parameters and normal function say void add(int, int), so add(3,4) will

(a) Invoke function template body as it is generic one

(b) Invokes normal function as it exactly matches with its prototype

(c) Not be called and Compiler issues warning

(d) Not be called Compiler issues ambiguity in calling add ()

(viii) Scope resolution operator is used.....

(a) to resolve the scope of global variables only

(b) to resolve the scope of functions of the classes only

(c) to resolve the scope of global variables as well as functions of the classes.

(d) None of these

(ix) In case of operator overloading, operator function must be.....

1. Static member functions

2. Non-static member functions

3. Friend Functions

(a) Only 2 (b) Only 1, 3

(c) Only 2, 3 (d) All 1, 2, 3

(x) Which of the following is not a file opening mode

(a) ios::ate (b) ios::nocreate

(c) ios::noreplace (d) ios::truncate

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P.T.O.