[103] SEAT No._____   No. of Printed Pages: 2

SARDAR PATEL UNIVERSITY
B.Sc(CA & IT) (Sem- 3)
US03CIIT52: Computer Programming using C++
Date: 10-11-2022, Thursday   Time: 2.00 pm – 5.00 pm   Marks: 70

Q-1   Select the correct option from the following questions.   **(10)**

1) _____ is called the insertion or put to operator.

    (a) &   (b) >>

    (c) <<   (d) ::

2) A _____ is collection of objects of similar type.

    (a) Data   (b) Class

    (c) Object   (d) Function

3) C++ supports _____.

    (a) Reference variable   (b) Dynamic initialization of variable

    (c) anywhere declaration of variable   (d) All of the above

4) For string manipulation _____ header file is used.

    (a) iostream.h   (b) conio.h

    (c) string.h   (d) ctype.h

5) _____ is a selection control structure.

    (a) if   (b) if...else

    (c) switch   (d) All of above

6) While defining derived class, base class name is written on _____ side of : symbol.

    (a) RHS   (b) LHS

    (c) Both   (d) Any one

7) One base class and multiple derived classes means _____ inheritance.

    (a) multiple   (b) hierarchical

    (c) multilevel   (d) hybrid

8) A pure virtual function is equated to _____.

    (a) zero   (b) 1

    (c) -1   (d) NULL

9) The correct function name for overloading the addition (+) operator is

    (a) operator(+)   (b) +operator

    (c) operator : +   (d) operator+

10) Which statement about operator overloading is false?
    (a) New operators can never be created
    (b) Certain overloaded operator can change the number of arguments they take.
    (c) The precedence of an operator cannot be changed by overloading.
    (b) Overloading cannot change how an operator works on built-in types.

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①   (P.T.O·)

Q-2   Do as directed. (ATTEMPT ANY TEN)   (20)

   1)   Differentiate variable and constant.

   2)   Define encapsulation as concept of OOP.

   3)   List out any four header files in C++.

   4)   Define destructor and give its example.

   5)   Define constructor and write its characteristics.

   6)   What do you mean by array of string? Give example.

   7)   What is inline function? Give an example of it.

   8)   Discuss default arguments briefly.

   9)   What is virtual base class?

   10)   List the operators that cannot be overloaded using friend function.

   11)   What is stream?

   12)   List some of the rules for overloading operator.

Q-3   **A**   Discuss the features of OOP in detail.   (05)

   B   Explain different data types available in C++.   (05)

                                    OR

Q-3   **A**   Explain different operators available in C++.   (05)

   B   Explain the concept of class & object with example.   (05)

Q-4   **A**   Explain constructor overloading with example.   (05)

   B   Explain declaration and initialization of one dimensional array with example.   (05)

                                    OR

Q-4   **A**   What is private and public area in class?   (05)

   B   Explain constant and nameless objects.   (05)

Q-5   **A**   Discuss virtual function in C++.   (05)

   B   Explain Multiple inheritance with suitable example.   (05)

                                    OR

Q-5   **A**   Define inheritance. List all types of inheritance. Discuss the syntax of defining base   (05)

          class & derived class.

   B   Explain the concept of friend function with suitable example.   (05)

Q-6   Explain unary operator overloading with example.   (10)

                                    OR

Q-6   What is file mode? Describe various file mode operations available.   (10)