11718

3 Hours / 100 Marks   Seat No.

Instructions :   (1)   All Questions are *compulsory.*

(2)   Answer each next main Question on a new page.

(3)   Illustrate your answers with neat sketches wherever necessary.

(4)   Figures to the right indicate full marks.

(5)   Assume suitable data, if necessary.

(6)   Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   **(A)   Attempt any SIX of the following :**   **6 × 2 = 12**

(a)   What is use of scope resolution operator ?

(b)   What is pointer ? Give example.

(c)   How user can declare member function outside the class ?

(d)   Enlist types of constructor.

(e)   What is static polymorphism ?

(f)   State different types of visibility mode in inheritance.

(g)   Give syntax of create pointer to object.

(h)   What do you mean by overloaded constructor ?

    (B) **Attempt any TWO of the following :**   **2 × 4 = 8**

        (a)   What is parametrized constructor ? Explain with example.

        (b)   What is multiple inheritance ? What is multilevel inheritance ? What is difference between them ?

        (c)   What is destructor ? How destructor is declared ? When destructor is invoked ?

2.   **Attempt any FOUR of the following :**   **4 × 4 = 16**

        (a)   What are the differences between structure and class ?

        (b)   What is pure virtual functions ? Write down the rules used for pure virtual function.

        (c)   What is base class ? What is derived class ? Give example.

        (d)   Write down characteristics of object oriented programming.

        (e)   Explain the need of static member function with example.

        (f)   What is this pointer ? Explain with example.

3.   **Attempt any FOUR of the following :**   **4 × 4 = 16**

        (a)   Explain different operator used in C++.

        (b)   Write a program which implement the concept of overloaded constructor.

(c)   What is virtual base class ? Explain with example.

(d)   Write a program which overload unary ++ operator by using friend function.

(e)   Explain the derived class access by pointer.

(f)   Explain how to pass object as function argument.

4.   **Attempt any FOUR of the following :**   **4 × 4 = 16**

(a)   Explain hybrid inheritance with example.

(b)   What is copy constructor ? Explain with example.

(c)   Explain the structure of C++ program.

(d)   What is friend function ? Explain with example.

(e)   What is inheritance ? What is use of inheritance ? Explain.

(f)   Write a program which implement the concept of pointer to array.

5.   **Attempt any FOUR of the following :**   **4 × 4 = 16**

(a)   Write down rules used for operator overloading.

(b)   What is structure ? How user declare structure ? Give example.

(c)   How to define virtual function ? Give example.

(d)   What is difference between procedure oriented programming and object oriented programming ?

(e) Write a program which perform arithmetic operation using pointer.

(f) What is polymorphism ? Enlist different types of polymorphism. What are the differences between them ?

6. Attempt any TWO of the following : **2 × 8 = 16**

(a) What is function ? What is call by value ? What is call by reference ? What is the difference between them ?

(b) What is constructor ? How user can declared constructor in derived class ? Explain with example.

(c) Write a program which concate and reverse string by using pointer to string.

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