2401E1025

Candidate's Seat No /0035

M.C.A. Semester-I Examination
Object Oriented Concepts & Programming

Time : 3-00 Hours]

January-2023

[Max. Marks : 50

Note : (1) Write both the sections in the separate answer books
(2) Figures to the right indicate full marks.
(3) Make necessary assumptions wherever necessary.

SECTION-I

Q.1   Answer the following: [9]
(a)   What is Class? Explain basic concepts of Object Oriented Programming
(b)   Explain Data Abstraction and Data Hiding.
(c)   What are the limitation of C programming explain in detail.

Q.2   Answer the following   [8]
(a)   Define the Term : MIL, Local Class, this pointer ,pure virtual function
(b)   Explain concept of Operator Overloading. List down operators that cannot be overloaded. Justify why listed operators should not be overloaded.

OR

(a)   Why we need user defined conversion? Explain different cases where user defined conversion are needed
(b)   Explain IOS functions and Manipulators with example

Q3   Explain the following   [8]
(a)   Early binding and Late binding
(b)   Virtual Base Class and Abstract Base Class

OR

(a)   Explain Generic programming. Also explain Class Templates with multiple parameters and overloading of template functions.
(b)   Define Reference variable. Compare it with pointer variable with suitable examples of each.

SECTION-II

Q4   Explain the following: [9]

(a)   What is polymorphism? Justify the need of polymorphism
(b)   Define STL. Discuss the use of STL in detail
(c)   What are the advantages of saving the data in binary form?

Q.5   Answer the following (Any Two)   [8]
(a)   Define namespace and its purpose. Also explain the use of using keyword with namespace.
(b)   Explain Friend function with its merits and demerits?
(c)   Define and explain the use of virtual function. Also show other way to resolve to access the derived class object and its member function

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using base class pointer.

Q.6   Answer the following: [8]

(a)   Explain File Error handling during File Operations.

(b)   Justify, Assignment operator cannot be overloaded using Friend
       Function.

OR

(a)   What is Virtual base class? Show its importance respect to Inheritance
       with suitable example.

(b)   How to pass command line arguments in C++? What are the value of
       agrc and argv?