

Total no. of Pages: 02

Roll no...

THIRD SEMESTER

B.Tech (CSE)

END TERM EXAMINATION

Nov/Dec-2022

CO-203 OBJECT ORIENTED PROGRAMMING

Time: 03:00 Hours

Max. Marks: 40

Note : Attempt any five

Assume suitable missing data, if any.

Give suitable code/example wherever applicable

Q.1 (a) Describe the features that differentiate object oriented programming languages from structured programming languages which do not support objects. Name a few OOP languages.

[3][CO2]

(b) What is exception, and type of exceptions in c++? Give a code to handle different exceptions. Analyse the mechanism of handling the exception. How it is different from if-else or switch statements.

[5][CO5]

Q.2 (a) Write a function template for finding the minimum value contained in an array. Distinguish between overloaded functions and function templates

[4][CO8]

(b) A class template is known as a parameterized class comment. Distinguish between the term class template and template class.

[4][CO8]

Q.3 (a) Write a program to find square and cube of a number using late/dynamic binding using base pointer. Write functions for getdata, show data, show result.

[4][CO5]

(b) Differentiate between

[4]

(i) Overloading and overriding

[CO4]

(ii) class variable and object variable

[CO3]

- Q.4 (a) Differentiate between compile time polymorphism and run time polymorphism. Write a code to implement overloading new operator. [4][CO4,8]
 (b) Compare normal function, inline function, macros in c++. Discuss memory usage, advantages, disadvantages, purpose, conditions of these mechanism. Give suitable examples. [4][CO5,7]
- Q.5 (a) How the multipath inheritance are handled. Give suitable example with code. [4][CO4]
 (b) Define a class "string" with members to initialize and determine the length of the string. Overload the operators '+' and '+=' for the class "string". [4][CO3,4]
- Q.6 (a) Analyze how the stack is used to implement function calls, and parameter passing options. [4][CO6]
 (b) C++ also provides us a few operators through we could access the data members and member functions of a class by using pointers. Explain these operators with code. [4][CO7]
- Q.7 Discuss any two in details and suitable examples [8]
 (a) Working with data files [CO9]
 (b) Friend function vs member function [CO3]
 (c) Features of Java [CO2]