C

Reg. No. :

Question Paper Code: 53204

B.E./B.Tech. DEGREE EXAMINATION, MAY 2018

Third Semester

Computer Science Engineering

15UCS304 - OBJECT ORIENTED PROGRAMMING WITH C++

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer All Questions

PART A - (5x 1 = 5 Marks)

1. The preprocessor directive #include is required if _____.   CO1- R

    (a) console output is used   (b) console input is used

    (c) both console input and output is used   (d) none of the above

2.   A Class can have multiple constructors is called   CO2- U

    (a) Dynamic Constructors   (b) Parameterized Constructor

    (c) Constructor overloading   (d) Copy Constructor

3. Derivation of a class from another derived class is called   CO3- R

    (a) Multilevel Inheritance   (b) Multiple Inheritance

    (c) Hybrid Inheritance   (d) Multipath Inheritance

4. _____ keyword is used to handle the exception   CO4- R

    (a) try   (b) catch   (c) rethrow   (d) Exception Handling

5. If we create a file by 'ifstream', then the default mode of the file is   CO5- R
_____

(a) ios :: out   (b) ios :: in   (c) ios :: app   (d) ios :: binary

PART – B (5 x 3= 15Marks)

6. How the class is specified in C++?   CO1- U

7. Define Constructor and write its Syntax   CO2- U

8. Define Runtime Polymorphism   CO3- U

9. What do you mean by catch all exceptions? Give its syntax and explain.   CO4- U

10. Name the two way in which the file can be opened   CO5- U

PART – C (5 x 16= 80Marks)

11. (a) What is encapsulation? What are its advantages? How can   CO1-U   (16)
         encapsulation be enforced in C++?

                                        Or

    (b) (i) Explain friend function with example program.   CO1 -U   (8)

         (ii) Write a program to create an integer type array of size 10 and   CO1 -U   (8)
         find out the element of highest density, i.e. the element within the
         array that occurs the maximum number of times. E.g. *A* [ ] = {15,
         89, 45, 85, 63, 15, 89, 15, 25, 12} then output is 15.

12. (a) Explain the following with example C++ Programs   CO2 -U   (16)
           1) Parameterized constructor
           2) Copy constructor

                                        Or

    (b) Explain operator overloading with friend function and member   CO2 -U   (16)
         function with example C++ programs?

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13. (a) Write a C++ program to illustrate a single inheritance program to multiply and display the two numbers?   CO3- U   (16)

Or

(b) (i) Explain Virtual Function with example program?   CO3- U   (10)

(ii) What is abstract class with example?   CO3- U   (6)

14. (a) Explain in detail about exception handling with try, throw and catch statement with example programs?   CO4-U   (16)

Or

(b) Explain in detail about function and class templates with example programs?   CO4 -U   (16)

15. (a) Explain about random access file in detail.   CO5- U   (16)

Or

(b) (i) Explain about Formatted and Unformatted IO with suitable examples.   CO5- App   (8)

(ii) Write a C++ program for namespace using keyword directive for printing a person name, age, and gender?   CO5- App   (8)

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