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Question Paper Code: 53804

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

Third Semester

Information Technology

15UIT304 - OBJECT ORIENTED PROGRAMMING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. The size of the `wchar_t` data type is CO1- R
(a) 1 byte (b) 2 bytes (c) 2 or 4 bytes (d) 4 bytes
2. Tell which function is used to determine whether some objects of the class have been created or not. CO2- R
(a) Static member function (b) Dynamic member function
(c) Friend function (d) Function Overloading
3. Identify which symbol is can not be overloaded in C++ CO3-R
(a) = (b) Delete (c) && (d) ?:
4. The undefined behavior in C++ program is avoided by _____ CO4-R
(a) Constructor (b) Virtual (c) Destructor (d) Virtual Destructor
5. Name which standard exception is used to handle the out of range situation CO5-R
(a) `std::out_of_range` (b) `std::outof_range` (c) `std::of_range` (d) `std::outofrange`

PART – B (5 x 3= 15 Marks)

6. Write the significant elements of object oriented programming. CO1- R
7. Mention the role of destructor in object oriented programming. CO2- R
8. What do you mean by function overload resolution? CO3- R

9. Define pure virtual function. CO4- R
10. Name any four file modes in C++ file operations. CO5- R

PART – C (5 x 16= 80Marks)

11. (a) Explain in detail about data types in C++ with suitable examples. CO1- App (16)
- Or
- (b) Develop a C++ program to display the book information in the library management systems. CO1- App (16)
12. (a) (i) List the characteristics of constructor. CO2-App (8)
- (ii) Develop a C++ program to find the area and circumference of the circle using friend function. CO2-App (8)
- Or
- (b) Explain in detail about parameterized and copy constructor with suitable examples. CO2-App (16)
13. (a) Write a C++ program to perform the addition, subtraction, multiplication and division between two complex numbers using binary operator overloading. CO3-App (16)
- Or
- (b) The student database contains student class , test class and result class. The base class is the student class. The test class is derived from the student base class. The result class inherits the properties from the test class. Justify which type of inheritance is used in that database. Implement that inheritance using C++ program with sufficient methods. CO3-App (16)
14. (a) Write the rules for virtual function . Also explain the virtual function with suitable example. CO4- U (16)
- Or
- (b) Compare function and class templates with suitable examples. CO4- Ana (16)
15. (a) Explain formatted and unformatted Input Output console in C++ program implementation. CO5- U (16)
- Or
- (b) Write a C++ program to write the content into “sample.txt” and read the content from “sample.txt”. CO5- U (16)