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Question Paper Code: 53804

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

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. If different properties and functions of a real world entity is grouped or embedded into a single element, what is it called in OOP language? CO1- R
(a) Inheritance (b) Encapsulation (c) Polymorphism (d) Data abstraction
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. Which member can never be accessed by inherited classes? CO3-R
(a) Private member function (b) Public member function
(c) Protected member function (d) All can be accessed
4. The undefined behavior in C++ program is avoided by____ CO4-R
(a) Constructor (b) Virtual (c) Destructor (d) Virtual Destructor
5. Which are the two blocks that are used to check error and handle the error? CO5-R
(a) Try and catch (b) Trying and catching (c) Do and while (d) TryDo and Check

PART – B (5 x 3= 15 Marks)

6. Explain recursive function with its example program. CO1- R
7. Mention the role of destructor in object oriented programming. CO2- R

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| 8. | List out the operators that cannot be overloaded | CO3- R |
| 9. | Define pure virtual function. | CO4- R |
| 10. | What are the various file stream classes. . | CO5- R |

PART – C (5 x 16= 80Marks)

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| 11. | (a) Explain Object Oriented Paradigm with its essential elements. . | CO1- App | (16) |
| | Or | | |
| | (b) Explain how structures are created and processed in C++? Write an example program for student database using structure | CO1- App | (16) |
| 12. | (a) (i) What is friend function? What is the use of using friend functions in c++? Explain with an example c++ program. | 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 add two complex number using operator overloading | CO3-App | (16) |
| | Or | | |
| | (b) Write a C++ program to define a class called patient(name,age,sex).Derive two classes from patient namely in-patient(ipno, date-of-admin, date-of-discharge) and out-patient(opno, doctor-id and consulataion-fee).Define two classes namely general-ward (rent/day) and special-ward(room no, rent/day, eb-bill).For out-patient print the bill with consultation fee. For in-patients, print bill according to their accommodation either in general-ward or special-ward | CO3-App | (16) |
| 14. | (a) Write the rules for virtual function . Also explain the virtual function with suitable example. | CO4- U | (16) |
| | Or | | |
| | (b) Define template. Explain the concept of class ad function templates with an suitable C++ program. | CO4- Ana | (16) |

15. (a) (i) Explain the 4 functions Seekg, Seekp, tellg, tellp used for setting pointers during file operation and show how they are derived from f stream class. CO5- U (8)
- (ii) Write a c++ program to create multiple text file and read from two files simultaneously. CO5- U (8)
- Or
- (b) Write a C++ program to write the content into “sample.txt” and read the content from “sample.txt”. CO5- U (16)

