

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

Question Paper Code: 31384

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Third Semester

Information and Technology

01UIT304 - OBJECT ORIENTED PROGRAMMING

(Common to Computer Science and Engineering)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is object?
2. Define data encapsulation and polymorphism.
3. What is a parameterized constructor?
4. What are default arguments?
5. What is an Exception?
6. Define Template.
7. What is virtual function?
8. Define hierarchical inheritance.
9. How do you classify ios class?
10. What do you mean by sequential access?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain in detail about the basic concepts of object oriented programming. (16)

Or

- (b) (i) Write a C++ program to overload a function *add()* for different parameters of different types. (8)
- (ii) Write a C++ program using inline function. (8)

12. (a) (i) Explain the use of constructors and destructors with suitable examples. (8)
(ii) Describe the copy constructor and explain its use. (8)

Or

- (b) (i) Differentiate between function overloading and operator overloading by giving examples. (6)
(ii) Write a C++ program to find the complex numbers using unary operator overloading. (10)
13. (a) (i) Write a C++ Program to swap the numbers using the concept of function template. (8)
(ii) Write a program in C++ using function template to read two matrices of different data types such as integers and floating point values and perform simple arithmetic operations on these matrices separately and display it. (8)

Or

- (b) Explain briefly about the exception handling mechanism with neat diagram and suitable example. (16)
14. (a) (i) Write a C++ program involving appropriate type of inheritance which will inherit two classes triangle and rectangle from polygon class. Use member functions for entering appropriate parameters like width, height etc. and to calculate the area of triangle and rectangle. (12)
(ii) Explain the different types of polymorphism. (4)

Or

- (b) Explain about the virtual function with suitable program and list the rules of virtual functions. (16)
15. (a) (i) Explain the roles of *seekg ()*, *seekp ()*, *tellg ()*, *tellp ()* functions in the process of random access in a binary file. (10)
(ii) How will you open a text file and read from it? Explain briefly. (6)

Or

- (b) (i) Explain the standard template library and how it is working. (12)
(ii) Describe briefly about STD Namespaces. (4)