Reg. No. :

Question Paper Code: 31834

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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. Write any four applications of OOPS.

2. List out some properties of friend functions.

3. Write some special characteristics of constructor?

4. List out the operators that cannot be overloaded using friend function.

5. What is generic programming?

6. List out the tasks to be performed for error handling code.

7. List the rules for inheritance.

8. Write some of the basic rules for virtual functions.

9. What are the stream classes for console operations?

10. What is meant by namespace?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain object-oriented paradigm with all its essential elements in detail.   (16)

Or

(b) (i) Discuss about constant and volatile functions.   (8)

(ii) Write about the local and nested classes with example programs. (8)

12. (a) (i) What is constructor? Explain the types of constructor with a suitable example. (10)

(ii) How the objects are initialized dynamically and explain dynamic constructors. (6)

Or

(b) (i) Write a program to overload = operator. Assign values of data members of one object to another object of the same type. (6)

(ii) Write about various Type conversions and Explicit constructor in detail with example programs. (10)

13. (a) What is Template? Explain function and class template? Write the syntax and example program for function and class template. (16)

Or

(b) Explain about the exception handling mechanism in detail. (16)

14. (a) (i) Write a C++ program that will give the conditions of environment required, food habits and unique characteristics of pet animals fish and dog. Define a base called pet that describe any common household pet; two derived classes called fish and dog with items specific to that type of animals. Write pure virtual functions in the base class for operations that are common to both types of animals. Write a program to test the usage of classes. (8)

(ii) Write a C++ program using inheritance to implement the following. A newspaper agent pays two variant rates for the delivery of newspapers. A delivery boy can earn RS. 2 on a morning delivery but only Rs. 1.50 on an evening delivery. Boys are salaried either for a morning delivery or for an evening paper round but not for both. Read(Input) the code for round (0 for morning and 1 for evening) and the number of total paper rounds in one week done by a boy and compute his earning and display it. (8)

Or

(b) Discuss in detail about RTTI with example programs. (16)

15. (a) (i) What is file? Write the types of file access? Write an example program for random access. (8)

(ii) Write a C++ program to read from 2 files simultaneously. (8)

Or

(b) What is standard template library? Write the types of STL? Write an example program for each STL types. (16)

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