Reg. No. :

Question Paper Code: 43804

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

Third Semester

Information Technology

14UIT304 - OBJECT ORIENTED PROGRAMMING

(Common to Computer Science and Engineering)

(Regulation 2014)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Which of the following concepts of OOPS means exposing only necessary information to client?

    (a) Encapsulation   (b) Abstraction   (c) Data hiding   (d) Data binding

2. Which of the following are available only in the class hierarchy chain?

    (a) Public data members   (b) Private data members
    (c) Protected data members   (d) Member functions

3. Which of the following operators cannot be overloaded?

    (a) +   (b) <   (c) ::   (d) =

4. Copy constructor must receive its arguments by _____

    (a) either pass-by-value or pass-by-reference   (b) only pass-by-value
    (c) only pass-by-reference   (d) only pass by address

5. Which statement is used to catch all types of exceptions?

    (a) catch()   (b) catch(Test t)
    (c) catch(…)   (d) catch(Exception

6. What is a template?

   (a) A template is a formula for creating a generic class

   (b) A template is used to manipulate the class

   (c) A template is used for creating the attributes

   (d) None of the above mentioned

7. Which of the following mechanism refers to static binding?

   (a) templates   (b) function overloading

   (c) operator overloading   (d) all the above

8. How many instances of an abstract class can be created?

   (a)1   (b) 5   (c) 13   (d) 0

9. Which of the following statement is correct?

   (a) A try block can have only one catch block

   (b) The try block can be followed by multiple catch blocks

   (c) The catch block can be followed by multiple try blocks

   (d) Multiple catch blocks can be followed by a try block

10. Choose the correct option which gives the current position of get pointer in a file.

   (a) seekg( )   (b) seekp( )   (c) tellg( )   (d) tellp( )

PART - B (5 x 2 = 10 Marks)

11. List the difference between an object and a class.

12. Define the terms realloc() and free().

13. What is the use of terminate and unexpected functions? When they are called?

14. Differentiate cross casting and down casting.

15. What is the use of namespace? How it is declared and used in a C++ program?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain about the OOPS concepts and its applications.   (16)

Or

   (b) (i) What is friend function? What is the use of using friend functions in c++? Explain with a program.   (8)

   (ii) What are the relationships between outer and inner classes? Give an example.   (8)

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17. (a) (i) Explain '+' operator overloading with an example. (8)

   (ii) Explain type conversion with suitable example. (8)

Or

   (b) (i) Write a C++ program to illustrate the use of overloading assignment operator. (8)

   (ii) Write a C++ program to calculate the factorial of a given number using copy constructor. (8)

18. (a) (i) What is a class template? Explain the syntax of a class template. Perform push and pop operation of a stack using class template. (10)

   (ii) Briefly explain uncaught exception with an example. (6)

Or

   (b) (i) Explain how rethrowing of an exception is done. (4)

   (ii) Write a C++ program that illustrates multiple catch statements. (12)

19. (a) (i) Write a C++ program to calculate the square and cube of a given number using multilevel inheritance. (12)

   (ii) Give the rules for using virtual functions. (4)

Or

   (b) (i) Demonstrate runtime polymorphism with an example. (8)

   (ii) Write short notes on RTTI and down casting. (8)

20. (a) What are manipulators? Explain in detail about various manipulators used for Input Output operations with an example. (16)

Or

   (b) (i) Explain namespace with example. (8)

   (ii) Write a C++ to count number of words in a text file named "OUT.TXT". (8)

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