Reg. No. :

Question Paper Code: 43804

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

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 feature in Object Oriented Programming allows reusing code?

    (a) Polymorphism   (b) Encapsulation
    (c) Inheritance   (d) Data hiding

2. The _____ principle helps the programmers to build secure programs.

    (a) Operator overloading   (b) Encapsulation
    (c) Data hiding   (d) Polymorphism

3. Which of the following gets called when an object goes out of scope?

    (a) Constructor   (b) Destructor
    (c) Main   (d) Virtual function

4. Constructor is executed when

    (a) an object is created   (b) an object is used
    (c) a class is declared   (d) an object goes out of scope

5. The class which do not have static data members are known as

    (a) simple class   (b) template class   (c) local class   (d) formal class

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 access specifier is useful only in inheritance?

   (a) private   (b) public
   (c) protected   (d) private and public

8. _____ is used to achieve run time polymorphism

   (a) operator overloading   (b) function overloading
   (c) virtual function   (d) virtual base class

9. Which header file is used for reading and writing to a file?

   (a) #include<iostream>   (b) #include<fstream>
   (c) #include<file>   (d) #include<conio>

10. What is meant by standard C++ library?

    (a) It is the collection of class definitions for standard data structuresand a collection of
        algorithms
    (b) It is a header file
    (c) Both (a) and (b)
    (d) None of these

PART - B (5 x 2 = 10 Marks)

11. Differentiate Procedural programming and Object Oriented programming.

12. How does constructor differ from normal functions.?

13. Mention the tasks performed by exception handling.

14. Define pure virtual functions.

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 the major principles of Object Oriented programming with illustrations and neat
        diagram.   (16)

Or
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(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)

17. (a) Explain the different types of constructors that are available in C++ with suitable examples. (16)

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. (b) What is an exception? How it is handled in C++ programs? Explain how the control is transferred when exceptions occur during programs execution. Write a program to illustrate exception handling. (16)

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) Demonstrate runtime polymorphism with an example. (8)

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

Or

(b) Discuss the different types of inheritance supported in C++ with suitable illustration. (16)

20. (a) Explain the features of Formatted console I/O system supported in C++. (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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