Reg. No. : | | | | | | | | | | |

Question Paper Code: 53804

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

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. Which of the following concept is often expressed by the phrase, 'One interface, and multiple methods'?

   (a) Abstraction (b) Polymorphism (c) Inheritance (d) Encapsulation

2. The following can be declared as friend in

   (a) an object (b) a class
   (c) a public data member (d) a private data member

3. The ability of an object to exhibit different behaviors in response to the same message is called

   (a) encapsulation (b) synchronization
   (c) polymorphism (d) abstraction

4. Pure virtual functions

   (a) have to be redefined in the inherited class
   (b) cannot have public access specification
   (c) are mandatory for a virtual class
   (d) the function that caused the error

5. How will a class protect the code inside it?

(a) Using Access specifier (b) Abstraction
(c) Use of Inheritance (d) All the above

PART - B (5 x 3 = 15 Marks)

6. What are the operators available in C++?

7. Can we have more than one constructor in a class? If yes, explain the need for such a situation.

8. Distinguish between overloaded function and function templates.

9. Why do we need virtual functions?

10. List and write the use of manipulators in C++? Give examples.

PART - C (5 x 16 = 80 Marks)

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

Or

(b) Explain the various types of operators supported by C++ and specify the precedence and associativity of each operator. (16)

12. (a) Explain the difference between constructor and copy constructor in C++. (16)

Or

(b) How the objects are used as function argument? With a simple program explain the concept. (16)

13.(a) What are different types of inheritance supported by C++? Explain each of it using an example. (16)

Or

(b) Write a C++ program to implement time class that has separate data members for hours, minutes and seconds. Overload + operator to add two times object and ++ operator to increment the time by one second. (16)

14. (a) What is run time polymorphism? How it is achieved? Explain with an example? (16)

Or

(b) Write a function template which accepts two arguments and swap them. Provide a suitable main program which uses the function template for swapping two integer values, two float values and two character values. (16)

15. (a) Explain in detail about file handling with example program. (16)

Or

(b) (i) Write notes on formatted and unformatted console I/O operations. (8)

(ii) Explain how errors can be handled in C++. (8)

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