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Question Paper Code: 50834

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

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. What is the output of the following code

```
char symbol[3]={‘a’,‘b’,‘c’};  
for (int index=0; index<3; index++)  
cout<< symbol [index];
```

(a) a b c (b) “abc” (c) abc (d) ‘abc’
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 process of building new classes from existing one is called

(a) Polymorphism (b) Structure
(c) Inheritance (d) Cascading
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. Which one of the following statement is correct?

(a) “cerr” is a predefined stream
(b) “cexit” is used for directing output
(c) The I/O streams library handles only standard input and output
(d) There are four types of predefined iostreams

PART - B (5 x 3 = 15 Marks)

6. List the characteristics of object-oriented programming.
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 out the unformatted I/O operators.

PART - C (5 x 16 = 80 Marks)

11. (a) Discuss about the merits and demerits of object oriented programming. (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) What is multilevel inheritance? How is it different from multiple inheritance? (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) Discuss in detail about the formatted and unformatted I/O with programs. (16)

Or

- (b) Explain how errors can be handled in C++. (16)