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C – 434

Reg. No. : .....

Name : .....

**Second Semester B.C.A. Degree Examination, July 2017**  
**(Career Related First Degree Programme Under CBCSS)**  
**Group – 2(b)**  
**Core Course**  
**CP 1242 : OBJECT ORIENTED PROGRAMMING**  
**(2013 Admn.)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

**(Very Short Answer Type)**

**One word to maximum of one sentence. Answer all questions.**

**(10×1=10 Marks)**

1. What is a class ?
2. What is an abstract class ?
3. What are static variables ?
4. What is static data member ?
5. What is static binding ?
6. What is stream ?
7. Define a destructor.
8. Show how an argument to a function is declared as constant.
9. Mention the memory management operators and commonly used I/O manipulators.
10. What is the use of scope resolution operator ?

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**SECTION – B**  
**(Short Answer)**

**Not to exceed one paragraph. Answer any eight questions. Each question carries two marks. (8×2=16 Marks)**

11. What is the significance of access specifiers in a class ?
12. Explain the difference between prefix and postfix incremental operator.
13. Write short notes on operator overloading.
14. What's the order that local objects are destructed ?
15. What do you mean by new and delete operator ?
16. When should one use references, and when should I use pointers ?
17. Can I overload the destructor for my class ? Support your answer.
18. Differentiate between macros and functions.
19. What is a friend function ? "Use of friend function and encapsulation are contradictory" – Comment critically.
20. What is function overloading ? Explain with an example.
21. When do we make a virtual function "public" ? What are the implications of making a function pure virtual function ?
22. Explain nesting of classes.

**SECTION – C**  
**(Short Essay)**

**Not to exceed 120 words. Answer any six questions. Each question carries four marks. (6×4=24 Marks)**

23. What is copy constructor ? Illustrate with proper example.
24. What are some advantages/disadvantages of using friend functions ?
25. Differentiate b/w friend and member function.



26. Write a C++ program to count the number of words in a given file. Note the words could be separated by single or multiple white spaces (White space is a blank space or a tab or a new line).
27. Bringout the difference between classes and structures in C++.
28. Explain with the help of suitable example the difference between function overloading and function over-riding.
29. Write short note on multilevel and multiple inheritances.
30. Explain with example about constructor overloading in C++.
31. Write a program to reverse a string using recursion.

**SECTION – D**

**(Long Essay)**

Answer **any two** questions. **Each** question carries **15** marks. **(2×15=30 Marks)**

32. What do you mean by object-oriented programming ? Discuss the different properties of an object-oriented programming.
  33. Explain with the help of suitable example the difference between function overloading and function over-riding.
  34. Write a program in C++ to create and delete a student record from a student's database and display the remaining records using file sharing.
  35. How can we distinguish b/w prefix and postfix nature while overloading the unary ++ operator ? Write a program to overload the new operator. When do we use the protected visibility specifier to a class member ? What are the advantages of using 'new' operator over malloc () ? What is runtime polymorphism ?
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