



SA – 912

II Semester B.C.A. Degree Examination, April/May 2015
(Y2K8 Scheme)
(70 Marks – 2011-12 and Onwards/60 Marks – Prior to 2011-12)
COMPUTER SCIENCE
BCA – 204 : Object Oriented Programming Using C++

Time : 3 Hours

Max. Marks : 60/70

Instructions : 1) Answer Section A, B, C.

2) Candidates who have taken admission in 2011 and onwards, they must attend Section D. (Section D applicable to 2011-12 and onwards.)

SECTION – A

Answer **any ten** questions. **Each** question carries **one** mark. **(10×1=10)**

1. What is the need of header files in C++ ?
2. Difference between object and class.
3. What is the use of scope resolution operator in C++ ?
4. Define polymorphism.
5. What is data abstraction ?
6. Define multilevel inheritance.
7. Name any 2 memory operators in C++.
8. What are generic pointers ?
9. What is late binding ?
10. What is a string constant ?
11. What is a stream ?
12. Mention any two mathematical function in C++.

SECTION – B

Answer **any five** questions. **Each** question carries **three** marks. **(5×3=15)**

13. Mention the differences between C and C++.
14. Describe any three manipulators.
15. Explain data members and member functions.

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16. Explain hierarchical and hybrid inheritance.
17. What is runtime polymorphism ? Explain.
18. Write a C++ program to show copy constructor.
19. Explain the advantages of function template.
20. What are default arguments ? Explain with an example.

SECTION – C

Answer **any five** questions. **Each** question carries **seven** marks. **(5×7=35)**

21. Explain the Looping structures in C++ with an example.
22. Write a C++ program to count no. of vowels and convert all uppercase to lowercase and vice versa in a text file.
23. What are constructors and destructors ? How do they differ from the normal functions ? With an example.
24. Explain call-by value, call-by address and call-by reference with example.
25. Describe the use of control structures with suitable example.
26. Write a C++ program to concatenate two strings using binary operator '+'.
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27. Explain private, public and protected visibility specifiers with respect to inheritance.
28. Write a program to perform addition of two matrices using operator overloading.

SECTION – D

Answer **any one** question. **Each** question carries **ten** marks. **(1×10=10)**

29. a) How does OOP overcome the short comings of traditional programming approaches ? **5**
- b) Write a note on virtual function. **5**
30. Write a program to create a student report using inheritance technique. **10**