



US – 649

**II Semester B.C.A. Examination, May 2017
(Repeaters) (Y2K8 Scheme)
COMPUTER SCIENCE**

BCA – 204 : Object Oriented Programming Using C++

Time : 3 Hours

Max. Marks : 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 an object ?
2. What is the need of header files in C++ ?
3. Mention the important features of C++.
4. What are inline functions ?
5. What is the use of scope resolution operator ?
6. Mention the different types of constructors.
7. Name any two operators that cannot be overloaded.
8. List out the different forms of inheritance.
9. What is polymorphism ?
10. What is the usage of templates in OOPs ?
11. What is a stream ?
12. What is the usage of seekg () ?

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SECTION – B

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

13. Explain the characteristics of OOP's.
14. What is const. qualifier ? Explain with an example.
15. How is a function declared in C++ ?
16. Define an array of objects in a class.
17. Write any three rules for operator overloading.
18. With an example explain friend function.
19. With an example explain the concept of function overloading.
20. What is a function template ? Explain.

SECTION – C

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

21. a) Compare procedure-oriented programming and object-oriented programming. 4
- b) Explain data members and member functions. 3
22. a) Describe any three data types in C++. 3
- b) What are the differences b/w call by value and call by reference ? 4
23. What are constructors and destructors ? How do they differ from the normal function ? Explain with examples ? 7
24. Write a C++ program to overload '+' operator to perform addition of two matrices ? 7
25. What are the benefits of inheritance ? Explain inheritance technique with an example. 7



- 26. a) Explain overriding functions with an example. 5
- b) What is pure virtual function ? 2
- 27. a) Explain exception handling. 4
- b) Explain 'this' pointer. How do you access and return data using 'this' pointer ? 3
- 28. a) Describe the different modes of opening a file in C++. 4
- b) Explain file pointers tellg() and EoF() with an example. 3

SECTION – D

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

- 29. a) Write a C++ program to find the maximum of two numbers using template. 5
- b) Write a C++ program to concatenate two strings ? 5
- 30. Write a C++ program to find sum of two complex numbers using friend function. 10

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这是中国历史上最伟大的一天