E 7595 (Pages : 2) Reg. No.....

Name.....

B.C.A./B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2017

Third Semester

OBJECT ORIENTED PROGRAMMING AND C++

(Common for B.C.A. and B.Sc. Computer Applications)

[2013 Admission onwards]

Time : Three Hours Maximum Marks : 80

Part A (Short Answer Questions)

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Define Object Oriented Development.
2. What is an association ?
3. What is the purpose of using argument names in a function declaration ?
4. Define a Qualifier.
5. What is an abstract class ?
6. Define a virtual function.
7. What is a new operator ?
8. What is a class ?
9. Define a destructor.
10. What is the use of pointer ?

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. What is Object Oriented Methodology ?
12. Explain Object Modelling.
13. What is an Aggregation ?
14. What are the various members of a class ?
15. Can in-line function be recursive ? Justify your answer.
16. How do we invoke a constructor function ?

Turn over

17. What is the purpose of class declaration ?
18. Explain multiple inheritance with an example.
19. What is the purpose of copy constructor ?
20. What is hybrid inheritance ?
21. Explain the purpose of *this* pointer.
22. What is a stream class ?

(8 × 2 = 16)

Part C (Descriptive/Short Essay Type Questions)

Answer any **six** *questions.*
Each question carries 4 *marks.*

23. Explain the different stages in OO Methodology.
24. What are the important themes in OO Technology ?
25. Explain Generalization and Inheritance with diagrams.
26. Write the relational operators in C++.
27. What is enumeration ?
28. What is encapsulation ?
29. Illustrate the difference between function overloading and function over-riding.
30. Explain the use of pointers in C++ with suitable examples.
31. Explain state modelling and interacting modelling.

(6 × 4 = 24)

Part D (Essays)

Answer any **two** *questions.*
Each question carries 15 *marks.*

32. Discuss the role of inheritance in object-oriented programming. What is public, private and protected derivation ? Give suitable examples for each.
33. What do you mean by static class members ? Explain the characteristics of static class members with suitable examples.
34. Write a C++ program to find the sum of digits of a number reducing it to one digit.
35. What is a constructor ? What are the different types of constructors ?

(2 × 15 = 30)