

**Fifth Semester B.E. (Computer Science Engg.)
(C.B.S.) Examination**

OBJECT ORIENTED PROGRAMMING

Time : Three Hours]

[Maximum Marks : 80

INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
- (2) Solve **SIX** questions as follows :
Que. No. 1 **OR** Que. No. 2
Que. No. 3 **OR** Que. No. 4
Que. No. 5 **OR** Que. No. 6
Que. No. 7 **OR** Que. No. 8
Que. No. 9 **OR** Que. No. 10
Que. No. 11 **OR** Que. No. 12
- (3) Due credit will be given to neatness and adequate dimensions.
- (4) Illustrate the answers with necessary figures/drawings wherever necessary.
- (5) Assume suitable data wherever necessary.

1. (a) Explain the basic concept of Object Oriented Programming. 8
- (b) What is the difference between a local variable and a Data member ? 6

OR

2. ✓ (a) Explain copy constructors with an example. 8
- (b) Write a C++ program that :
- (i) Calculates and prints the sum of the integers from 1 to 10.
- (ii) To calculate x raised to the power y. 6
3. ✗ (a) What is operator overloading ? Explain with example. 7
- (b) What are the difference between pointer to constant and constant to pointer ? 6

OR

4. (a) Explain the New and Delete operators in C++. 7
- (b) Explain Pitfalls of operator overloading. 6
5. ✓ (a) Explain different types of Inheritances. 8
- (b) Explain function overloading with an example. 6

OR

6. (a) Describe pure virtual function with an example. 8
(b) Write a C++ program using this pointer. 6
7. (a) What is Static function and Dynamic type information ? 7
(b) Explain Abstract class with an example. 6

OR

8. ✓ (a) What are the types of Polymorphism ? 7
(b) Explain the concept of containership with example. 6
9. ✓ (a) What are streams ? Why they are useful ? 7
(b) What is manipulator ? Differentiate between manipulator and ios functions. 6

OR

10. (a) Explain about formatted and unformatted IO with suitable example. 7
(b) Explain the role of :
(i) seekg ()
(ii) seekp ()
(iii) tellg ()
(iv) tellp () functions in the process of Random access in binary file. 6

11. (a) What is the need for template function in C++ ?
What are their advantages ? 7
- (b) What is the need for exception handling ? 6

OR

12. (a) When do we need multiple catch blocks for a single
Try block ? Give an example. 7
- (b) Explain the function Template. 6