



B.E DEGREE EXAMINATIONS: APRIL/MAY 2016

(Regulation 2009)

Eighth Semester

ELECTRONICS AND COMMUNICATION ENGINEERING

CSE103: Object Oriented programming and C++

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Object oriented language is
 - a) Algorithm centric
 - b) Procedure centric
 - c) Top down approach
 - d) Bottom up approach
2. _____ is the process by which object of one class acquires the properties of object of another class.
 - a) Encapsulation
 - b) data hiding
 - c) inheritance
 - d) Abstraction
3. _____ function is a combination of macro & function
 - a) Main
 - b) Virtual
 - c) Static
 - d) Inline
4. When the code to be linked with the call is known at compile time that situation is called as _____
 - a) Binding
 - b) late binding
 - c) static binding
 - d) dynamic binding
5. To expose a data member to the program, you must declare the data member in the _____ section of the class
 - a) public
 - b) exposed
 - c) common
 - d) unrestricted
6. Constructors are used for
 - a) Assigning values to the variables
 - b) Initialize data members
 - c) Initialize pointers
 - d) Instantiate Object
7. Find the equivalent of Macro

- a) Static function
 - b) Friend function
 - c) Inline function
 - d) Constant function
8. Dynamic memory allocation is accomplished with the operator ____
- a) new
 - b) this
 - c) malloc()
 - d) delete
9. Usually a pure virtual function
- a) will never be called.
 - b) will be called only to delete an object
 - c) has complete function body
 - d) is defined only in derived class
10. Friend function is used
- a) To access Data members
 - b) Used to initialize data members
 - c) To execute member function
 - d) Allocate memory for data members

PART B (10 x 2 = 20 Marks)

11. Distinguish between procedure oriented and object oriented programming
12. List any four applications of OOP
13. Differentiate between call by value and call by reference.
14. What is the use of constant arguments? Give an example
15. Write a function to add two complex numbers using return objects and object arguments
16. Distinguish between structure and classes
17. What is the use of inheritance?
18. Define multiple inheritance. Give an example.
19. State any two techniques to allocate memory.
20. What is the use of virtual function?

PART C (5 x 14 = 70 Marks)

21. a) Explain the special features of OOP with an example. Also explain their use.
- (OR)**
- b) i. Write a simple C++ program to create an object to represent a bird. Write a (6)
function to get input and display data members. Use constructor.
 - ii. Write a note on Structure of a C++ program. Write a function to copy string (8)
using pointers.
22. a) Write a program to add length in feet and inch. Use default constructor, copy
constructor, return by reference and function overloading.

(OR)

- b) i. Explain any four control structures with an example. (8)
- ii. Explain any two function prototypes. (6)

23. a) Write a program to calculate gross salary of 50 employees.
Gross salary = Basic + 80% of basic (DA) + CCA and 8.3 % of (Basic+DA) as PF.
Use array of objects, call by reference, return object and default argument.

(OR)

- b) Write a program to do the following string processing functions:

- 1) String concatenation.
- 2) String comparison.
- 3) String copy.
- 4) String split
- 5) Substring finding

24. a) Explain about different types of inheritance with an example.

(OR)

- b) i. Explain about unary operator overloading with an example. (7)
- ii. Use operator overloading to add time in the format hh:mm:ss. (7)

25. a) i. Write a note on memory management. (7)
- ii. Write about static functions and static variables. (7)

(OR)

- b) i. Explain the use of friend function. (7)
- ii. Explain the concept of late binding with virtual function. (7)
