

B.E. Fourth Semester (Information Technology) (CGS)
10721 : Object Oriented Technologies : 4 IT 03

P. Pages : 2

Time : Three Hours



AU - 2606

Max. Marks : 80

- Notes : 1. Illustrate your answer necessary with the help of neat sketches.
2. Use of pen Blue/Black ink/refill only for writing book.

1. A) What is a constructor? List the important properties of constructor. 6
B) Define a class distance to represent distance in feet and inches. Include member functions to read and print distance object. Also include a member function to add two distance class objects having following declaration distance add (distance) 8

OR

2. A) Define 8
a) Object b) Class
c) Inheritance d) Polymorphism
B) Write a C++ program to illustrate the concept of static class data. 6
3. A) What do you mean by pitfall of operator overloading? List the different pitfalls of operator overloading. 6
B) Define a class student having two data members name and roll no. Include member functions to read and print student object. List this class by writing a main () to read and print several student class objects by using the concept of array of pointers to objects. 7

OR

4. A) Write a C++ program to illustrate conversion of user defined data type to basic type. 7
B) List the different member functions for string modification. Explain any two of them. 6
5. A) Write a C++ program to illustrate the order of constructor calling in multilevel inheritance. 6
B) What do you mean by containership? Write a C++ program to illustrate the concept of containership. 7

OR

6. A) Assume a class counter which has a count data member and member functions to return the value of count and overloaded operator ++ to increment the value of count. Obtain a class derived from counter which provides the definition of overloaded operator. 7
B) Explain the different types of inheritance supported by C++ 6

7. A) Explain 6
- a) Abstract class b) Virtual base class
- B) What do you mean by static class function? Write a C++ program to illustrate the concept of static class function. 8

OR

8. A) Friend function can be used to increase the versatility of overloaded operators. Justify this statement with an example. 6
- B) Define 8
- a) Virtual function
- b) Pure virtual function
- c) This painter
- d) Copy initialization
9. A) List the diffⁿ forms of file I/O. Write a C++ program which writes data to a file using character I/O. 7
- B) Explain 6
- 1) Command line arguments
- 2) Formatting flags

OR

10. A) Write a C++ program which stores an array of integers to a file named binary.dat. The program then should read the array from the file and write the integer numbers to standard O/P using binary i/o 8
- B) What do you mean by a stream? Explain the different stream classes. 5
11. A) Write a function template search which can search an array for a particular value and returns the index if the value is present, otherwise it should return -1 8
- B) Explain 5
- a) Containers b) Iterators

OR

12. A) Define a class template stack which can be used for storing elements of generic type. 8
- B) Write a C++ program to put values in a vector container and display its contents. 5
