

M.C.A. / P.G.D.C.S. First Semester (First Year) (CGS)
15502 : Problem Solving Using C++ : 1 MCA 2

P. Pages : 2

Time : Three Hours



AU - 3149

Max. Marks : 80

- Notes :
1. Due credit will be given to neatness and adequate dimensions.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing book.

1. a) State and explain the difference between constructor and destructor with examples. 7
- b) Write a program to count vowels in a string by using C++ string class. 6

OR

2. a) Write a program in C++ using class circle having radius as data member, PI as constant, use area, circumference and diameter as the member function to evaluate it. 7
- b) What is Array of objects? Explain with suitable example. 6
3. a) Write a program to find the smallest of an array using function and pointer. 7
- b) Explain operator overloading with its pitfalls & examples. 6

OR

4. a) Explain the 'new' and 'delete' operator with suitable example. 6
- b) Explain the working of pointer to an object with the help of suitable example. 7
5. a) Write a program in C++ to demonstrate the use of multiple Inheritance. 7
- b) What is function overloading? Explain with suitable example. 7

OR

6. a) What are the access rules with private and protected Inheritance explain with example. 7
- b) Explain the concept of constructor calling in an inheritance with suitable example. 7
7. a) Write a program to demonstrate use of Friend function. 7
- b) Explain the concept of virtual function with suitable example. 7

OR

8. a) Explain the concept of Abstract class with suitable example. 7

- b) Explain the concept of static data member & static member function with suitable example. 7
9. a) Write a program to copy the contents of one text file into other. 7
- b) Explain the use of command line arguments with the help of C++ program. 6

OR

10. a) Write a C++ program to read a file and to display the content of the file on the screen. 7
- b) Explain the various function for manipulations of file pointer. 6
11. a) Write a program to handle 'Array Index out of Bound' exception. 7
- b) Explain the concept of class template with suitable examples. 6

OR

12. a) Write a program in C++ to create a function using function template for addition of two number. 7
- b) Explain the concept of standard template library in brief. 6
