(OLD COURSE)

**QP Code: 28533** 

(3 Hours)

[Total Marks: 100

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| Note: 1) Question no. is 1 compulsory.  2) Answer any four from remaining.  Q1) Answer any four.  a) Explain default constructor with example. b) What is function declaration? c) Explain destructor with example. d) WAP in c++ to find sum and average of digits in a given number. e) Explain the two features of OOP.  Q2a) WAP to generate output in following order. Use for loop.  1 121 12321 1234321 | 26.201     |
| Q1) Answer any four.  a) Explain default constructor with example. b) What is function declaration?  | 20         |
| c) Explain destructor with example. d) WAP in c++ to find sum and average of digits in a given number. e) Explain the two features of OOP.   |            |
| Q2a) WAP to generate output in following order. Use for loop.  1 121   | 10         |
| 12321<br>1234321   |            |
| Q2b) Write a program in c++ to find roots of quadratic equation. Use switch statement.   | 10         |
| Q3a) WAP in c++ to generate Fibonacci series using user defined function.  | 10         |
| Q3b) Explain call by reference and call by value with example.   | 10         |
| Q4a) Explain function overloading and write a program to perform sum of two integer, two float, two double. Using function overloading concept.  Q4b) Write a recursive program to find power of x <sup>n</sup> .  | 10<br>10 · |
| (40) Write a recursive program to find power of x.   | 10         |
| Q5a) WAP in c++ to count number of characters, and space in a given string.  | 10         |
| Q5b) Explain how to define functions inside and outside class with example.  | 10         |
| Q6a) Explain multiple inheritance and write the program using concept of multiple inheritance  | e.         |
| 2  | 10         |
| Q6b) WAP to overload + operator to convert inches into feet and display total number of feet   |            |
| and inches.  | 10         |
| Q7) write short note on (any four).  | 20         |
| 1) Friend function 2) static data member and member function 3) pure virtual function 4) copy constructor 5) multipath inheritance.  | 20         |
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