**K.T.S.P.Mandal’s**

**Hutatma Rajguru Mahavidyalaya,Rajgurunagar**

 **S.Y.B.B.A.(C.A.)**

**CA - 402 : CPP**

**(2019 Pattern) (CBCS) (Semester - IV)**

 **[Marks: 40] [Time: 8:30am to 10:30.]**

 **Instructions to the candidates:**

 **1) Answer all questions.**

 **2) Figures to the right side indicate full marks. Date: 2/03/2024**

**Q1) Attempt any four of the following : [4 × 2 = 8]**

1. What is encapsulation and data abstraction?
2. What is reference variable ?
3. Explain the use of new operator ,state the syntax?
4. Define the following term :1)Early binding 2)late binding?
5. Explain the use of scope resolution operator

**Q2) Attempt any FOUR of the following : [4 × 4 = 16]**

1. Explain array of object with suitable example?
2. Explain virtual base class with suitable diagram?
3. Explain abstract class with suitable example.
4. What is inheritance ?Explain its types
5. Explain function overloading with example.

**Q3) Attempt any FOUR of the following : [4 × 4 = 16]**

1. Write a program to overload binary plus operator to concatenation of two strings.
2. Write a C++ program to calculate factorial of integer number by using inline function.
3. Design a base class person(name,address,phoneno).Drive a class employee(eno,ename) from person drive a class manager(designation,department,basic-salary) from Employee.Accept all details of ‘n’ managers and display manager having highest salary.
4. Explain object to pointer with example.
5. What is constructor ? Explain its type .