

### **PART A**

1. Write a Program to find the number and sum of all integers greater than 100 and less than 200 that are divisible by 7.
2. Write a program that asks the user to enter two words. The words will be separated by enough dots so that the total line length is 30.
3. Write a Program that asks the user for low and high integer in a range of integers. The program then asks the user for integers to be added up.
4. Write a program to concatenate two string using command line argument
5. Write a program to extract a portion of character string and print the extracted string. Assume that in character are extracted starting with nth character (don't use substring () method).
6. Write a program to create a vector to store the shopping list of items
7. Write a program to sort a list of numbers that are accepted through command line arguments
8. Write a program to multiply two matrices

### **PART B**

1. Write a program to display a menu with an option add subtract, multiply and division by implementing classes. Do the appropriate action on selection. Uses separate method for calculation.
2. Write a program to create student class with fields. The total of the 3 subjects must be calculated only when the student passes in all 3 subjects otherwise declare total is 0. using constructor create a array of 'n' students
3. Create a base class box with height, depth and width. Add a method to calculate volume. Write all possible constructors. Create a derived class with additional data members weight and colour. Make usage the keyword super.
4. Develop a program to produce pay slip of a name, code and designation. Add another base class consisting of data members account number, date of joining and basic pay. The derived class consists of data members of other earning (pf,lic,tax). (Implement using interface).
5. Create a package my package, which has class to represent a bank account, includes following data members. Name of the depositor, account no, type of account and balance amount.
6. Write a java program to demonstrate the usage of feature package. Create package to convert temperature in centigrade into Fahrenheit and one more package to calculate simple interest. Implement both packages in main.
7. Program to demonstrate multithreading using runnable interface. Define three different threads one to calculate square of first n integers, another to calculate cube of first n integers and third thread to find the square root of the first n integers.