

BE CS III

~~CS 3006~~

- Q1. Write a program to generate a four digit number and display minimum number of notes require to represent it.
- Q2. Write a program to generate positive single digit number and display total amount in terms of Rs.
- Number of 50 paisa coin
 - Number of 25 paisa coin
 - Number of 20 paisa coin
 - Number of 10 paisa coin
 - Number of 5 paisa coin
- Q3. Write a program to convert the given temperature in Fahrenheit to Celsius using the following formula $C = (F - 32) / 1.8$
- Q4. The straight line method of computing the early depreciation to the value of an item is given by $\text{Depreciation} = (\text{Purchase price} - \text{salvage value}) / \text{years of service}$
Write a program to determine salvage value of an item when the purchase price, years of service and the annual depreciation are given.
- Q5. Write a program to compute the real roots of a Quadratics equation $ax^2 + bx + c = 0$.
- Write a program to generate two numbers and swap them with and without using third variable.
- Q6. Write a program to generate four numbers and display maximum and minimum number (using if—else statement).
- Q7. Write a program to generate four numbers and display second maximum number (using if—statement).
- Q8. Write a program to generate four numbers and display third maximum number (using if—else statement).
- Q9. Write a program to generate four numbers and count how many numbers are even (using if—else statement).
- Q10. Write a program to generate a single digit number and display corresponding day of week (using if else statement).
- Q11. Write a program to generate a four digit number a display in words along with position value (using switch case) E.g. 3264 → three thousand two hundred sixty four.
- Q12. Write a program to read a multiple digit number a display if word (using switch case).
- Q13. Write a program to read multiple digit number and display it reverse order (using while, do while, for loop).
- Q14. Write a program to read N number and count how many number are even or odd (using while, do while, for loop).
- Q15. Write a program to read N number and display maximum number out of them (using do, do while, while, for loop).
- Q18. Write a program to read a multiple digit number and display sum of its digit.
E.g 3456 ($3 + 4 + 5 + 6 = 18$)
- Q19 Write a program to read a multiple digit number and a single digit number and check whether single digit number appear in the multiple digit number . If appear then count how many times it comes .
- Q20. Write a program to read a digit number and display its factorial.
- Q21 Write a program to read two numbers and calculate first value res to the power second value.
- Q.22 Write a program to read a number and display all the factors of it.
- Q.23 Write a program to read a number and check whether it is prime or not.

Q.24 Write a program to read N number and display maximum and minimum number.

Q.25 Write a program to determine the sum of the following harmonic series for n value of N :
 $1, \frac{1}{2}, \frac{1}{3}, \dots, \frac{1}{n}$

Q.26 Write a program to display series of prime numbers between 1 to N numbers.

Q.27 Write a program to read a N numbers and whether all of them are descending order or not.

Q.28 Write a program to generate the following pattern :-

(I) 1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

(ii) 1
2 2 2
3 3 3 3 3
4 4 4 4 4 4 4

(iii) *
* *
* * *
* * * *
* * * * *

(iv) *
* *
* * *
* * * *

(v) 0
1 0
1 0 1
0 1 0 1
0 1 0 1 0

(vi) 0
1 2
3 4 5
6 7 8 9
0 1 2 3 4

(vii)

```
  *
 * *
* * *
* * * *
```

(viii)

```
1
121
12321
1234321
123454321
```

Q29 Write a program to display all palindrome numbers between 1 to N number.

Q30 Write a program to display all Armstrong numbers between 1 to N number. E.g: $3^3 + 7^3 + 1^3 = 371$

Q31 Write a program to read two numbers and display Greatest Common Divisor(GCD) number.

Q32 Write a program to read N values and calculate their average and display those values which are above average (Using Array).

Q33 Write a program to reverse element of an array.

Q34 Write a program to left shift an array elements by one position.

e.g.

3	6	4	2	9	5
---	---	---	---	---	---

After Shifting

6	4	2	9	5	3
---	---	---	---	---	---

Q35 Write a program to circular left shift an array elements by one position

e.g.

3	6	4	2	9	5
---	---	---	---	---	---

After shifting

6	4	2	9	5	3
---	---	---	---	---	---

Q36 Write a program to left shift an array element by N position.

e.g.

5	4	6	3	7	2
---	---	---	---	---	---

N=3

After Shift:-

3	7	2	0	0	0
---	---	---	---	---	---

Q37 Write a program to circular left shift an array elements by N position.

e.g.

6	3	5	4	7	8
---	---	---	---	---	---

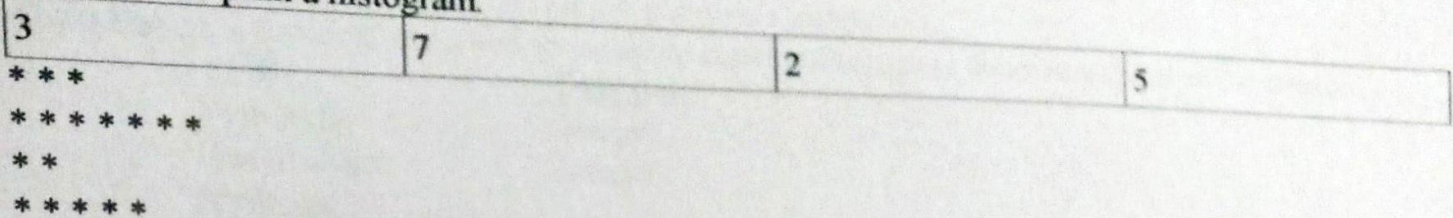
N=4

After shift

7	8	6	3	5	4
---	---	---	---	---	---

Q38 Write a program to sort an array in ascending order.

Q39. WAP to print a histogram.



Q40. WAP to read $m \times n$ matrix and display it.

Q41. WAP to read two $n \times m$ matrices and display sum of two matrices.

Q42. WAP to read two $n \times m$ matrices and display multiplication of two matrices if it is possible otherwise display a message.

Q43. WAP to read a $n \times m$ matrix and display its transpose matrix.

Q44. WAP to read two $n \times m$ matrices and check whether two matrices are same or not.

Q45. WAP to read two $n \times m$ matrices and display sum of two matrices.

Q46. WAP which will say "Hello" to each name passed at command line prompt.

Q47. WAP to sort names passed at the command prompt.

Q48. WAP to convert a lower case letters to upper case in a string

Q49. WAP to count number of consonants and vowels in a sentence.

Q50. WAP to count number of words and characters in a sentence.

Q51. WAP to check whether a string is palindrome or not.

Q52. WAP to remove extra spaces in a sentence.

Q53. WAP using a StringTokenizer class to parse a line of text and display the tokens separated on basis of a given delimiter.

Q54. WAP that accepts a shopping list of five items from the command line and stores in a vector.

Q55. Modify the Q51. Program to accomplish the following:

- To delete an item in a list
- To add an item at a specified location in a list
- To add an item at the end of a list
- To print the contents in a vector

Q56. Design a money class and its possible constructors, using following fields and methods:

<u>Fields</u>	<u>Data Type</u>
Rupee	Integer
Paisa	Integer
<u>Methods</u>	
setMoney()	
show()	

Q57. Design a Person class and its possible constructors using following fields and methods:

<u>Fields</u>	<u>Data Type</u>
fname	String
lname	String
<u>Methods</u>	
setValue()	
show()	

Q59) Design a matrix class and its all the possible constructors.

Q60) Design a Rational class and its possible constructors ,using following fields and methods:-

Fields:

Numerator
Denominator

Methods:

setValue()
show()

Data type:

Integer
Integer

Q61) Design a class to represent a bank account. Include the following members:

Data members:

->Name of the depositor
value

->Account number

->Type account

->Balance amount in the account

Methods:

initial Value() to initialize the

deposit()

withdraw()

display()

Q62) Assume that a bank maintains two kinds of account for its customers one called saving accounts and other current account. The saving account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintains a minimum balance and if the balance falls below the level, a service charge is imposed.

Create a class Account that stores customer name,account number,and type of account. From this derive the classes Curr-acc and Sav-acc to make them more specific to their requirements. Include the necessary methods in order to achieve the following task.

(a)Accept deposit from a customer and update the balance.

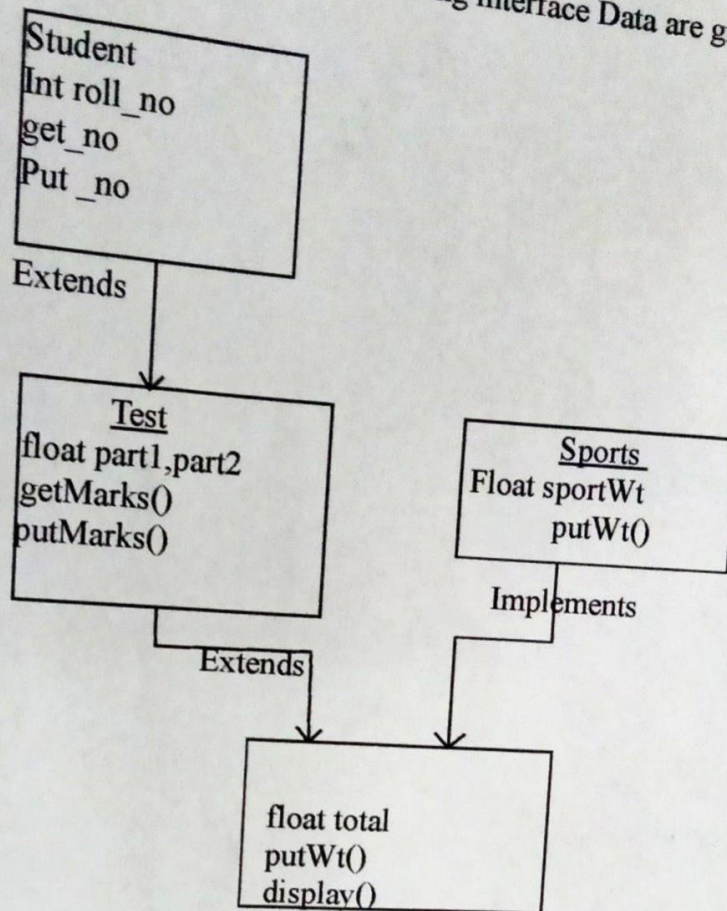
(b)Display the balance.

(c)Compound the deposit interest.

(d)Permit withdrawal and update the balance.

Check for minimum balance ,impose penalty,if necessary and update the balance.

Q.63. To implement the concept of multiple inheritance using interface Data are given in the following figure:



Result

Q64. Design a package to contain the class student and another package contain the interface sports.

Q.65 Develop an applet that receives two numeric data as input from the user and compute the following operation on the screen or Text Box

- A) Addition
- B) Subtraction
- C) Multiplication

Sam