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List of Practicals- Class XII (Computer Science)

Write C++ program to

1. Calculate percentage of a student and print his/her division.
2. Print the following series - 10 15 22 31 42 n terms.
3. Calculate HCF of two numbers.
4. Find the smallest no. in an array.
5. Count the no. of vowels in a string.
6. Check whether a given string is palindrome or not.
7. Print the row-wise sum of a matrix.
8. Add two matrices.
9. Add two distances given in foot and inches using structure.
10. Calculate area of a triangle using class.

11. Add two distances given in foot and inches using class.
12. Use constructors and destructors to initialize the objects and print their final values.
13. Inherit a class vehicle from other classes such as bus and car.
14. Generate a text file and calculate its size in bytes.
15. Count the no. of vowels in a text file.
16. Count the no. of objects in a binary file.
17. Search an element in an array(sequential search).
18. Search an element in a sorted array using binary search.
19. Sort an array using selection sort method.
20. Sort an array using insertion sort method.
21. Sort an array using bubble sort method.
22. Merge two sorted arrays.
23. Reverse a string using stack of characters.

24. Fill the data in a queue and print the data by retrieving them from the queue.
25. Consider the following table PREPAID. Write SQL commands for the statements (i) to (x) and give output for SQL queries (xi) to (xv).

Table:PREPAID

SNo	Cname	Model	Connection	Activation Date	Validity (in days)	Amount (paid in Rs.)
1	Sita	Nokia	Airtel	04/06/2014	365	3300
2	Ritesh	Nokia	Vodafone	12/02/2015	60	575
3	Reena	Samsung	Vodafone	14/05/2014	365	3030
4	Meetali	Nokia	Telenor	24/09/2014	180	890
5	Ramanuj	Samsung	Idea	16/10/2014	180	900
6	Anupam	LG	Vodafone	18/01/2015	60	600
7	Sai Ram	Nokia	Telenor	10/12/2014	180	890
8	Deepa	LG	Reliance	08/03/2015	30	300
9	Karan	Sony	Idea	30/01/2015	90	800
10	Jayant	Micromax	Airtel	02/02/2015	60	560

- (i) To display Cname and Amount of customers having “samsung” model and “Hutch” connection.
- (ii) To display different types of connection available.
- (iii) To display sum of validity of each type of connection grouping.
- (iv) To display Cname, Connection and date of expiry. Where date of expiry is date of activation + validity.
- (v) To display the contents of table in ascending order of name.
- (vi) To display the details of customers whose cname starts with ‘R’.
- (vii) To count the no. of rows having model ‘Nokia’.
- (viii) To add a new column ‘Date of Expiry’.
- (ix) To add a new row with following date : 11, “Rakesh”, “Samsung”, “Reliance”, 31/05/2015, 180, 1200.
- (x) To increase the validity of “Vodafone” connections by 10 days.
- (xi) Select count (distinct Model) from PREPAID;
- (xii) Select max (Activation_Date), Min (Activation_Date) from PREPAID;
- (xiii) Select avg (Validity) from PREPAID where Model = “LG”;
- (xiv) Select max (Amount) from PREPAID where connection = “Idea”;
- (xv) Select Model, sum(Amount) from PREPAID Group by Model;**