



AJMANI INTERNATIONAL SCHOOL
Summer Holiday Home Work 2017-18
Class : XII

Computer Science (C++)

1. An electricity board charges according to following rate:

For the first 100 units - 40 P per unit (P-paisa)

For the next 200 units - 50 P per unit

Beyond 300 units - 60 P per unit

All users are charges meter charge also which is Rs. 50/-

Write a program to read the number of units consumed, and print out the charges.

2. Write a program in C++ to accept monthly salary from the user, find and display income

Monthly Salary

Income Tax

9000 or more

40% of the monthly salary

7500 – 8999

30% of the monthly salary

7499 or less

20% of the monthly salary

3. Write a program to accept 10 integers from a user in single dimension array and sort the array in ascending order:

4. Write a program check if a string is palindrome or not.

5. Write a program to find out the number is perfect or not.

6. Write a program to find out the number is magic number or not.

7. Write an interactive program in C++ to read a string and make a table displaying different types of characters in the following format for example:

Input string : *THE QUICK BROWN fox jumps over the LAZY LITTLE DOG*

Output table

Uppercase Vowels : 6

Lowercase Vowels : 7

Uppercase consonants : 15

Lowercase consonants : 13

8. Write a program to read a name (first name, middle name, last name) from a user and produce an output where first letter of each name is capitalized.

9. Write a C++ program to read a line of text from the keyboard and display the following information on the screen: (i) Number of words (ii) Number of characters.
10. Design a program in C++ to calculate the tax for the people living in Australia. Specify a class taxpayer whose class description is given below:

Class Name : **TaxPayer**

Data Member : int pan to store the personal account number
 char name[20] to store the name of a person
 float taxableinc to store the total annual taxable income
 float tax to store the tax that is calculated

Member function :

 Inputdata() to enter the data for a taxpayer
 displaydata() to display the data for a taxpayer
 computertax() to compute tax for a taxpayer

The tax is calculated according to the following rules:

TOTAL annual taxable income	RATE OF TAXATION
Upto 60000	0%
Any amount above 60000 but upto 150000	5%
Any amount above 150000 but upto 500000	10%
Any amount above 500000	15%

In the main program create an object of the type taxpayer. Calculate the tax for the taxpayer and output it in the following format:

Pan No.	Name	Total Amount	Taxable	Income Tax
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11. A class *student* has three data members: name, rollno, marks of 5 subject and member function to assign stream on the basis of table given below:

Average Marks	Stream
96% or more	Computer Science
91%- 95%	Electronics
86% - 90%	Mechanical
81%- 85%	Electrical
76% - 80 %	Chemical
71% - 75%	Civil

12. Define a class Employee in C++ with the following specification:

Private Members:

ename	an array of char of size[50] (represent employee name)
deptname	an array of char of size[20] (represent department name)
salary	integer (represent total salary of an employee)
bonus	float
CalBonus()	This function calculate the total bonus given to an employee according to following conditions

Deptname	Bonus
Accounts	4 % of salary
HR	5% of salary
IT	2% of salary
Sales	3% of salary
Marketing	4% of salary

Public Members:

- A function read_info() to allow user to enter values for ename, deptname,salary & Call function CalBonus() to calculate the bonus of an employee.
- A Function disp_info() to allow user to view the content of all the data members.