

**HARINGHATA MAHAVIDYALAYA**  
**SEM-II 1<sup>st</sup> Internal Assessment Examination- 2019**  
**B.SC. (Hons.)**  
**Subject- CC3**  
**Subject Title- Programming in C++**  
**Coverage: Unit-1 to Unit- 4**  
**Submission from 08.03.2019 to 14.03.2019**

**Answer any two(2) questions**

**Maximum Marks: 10**

1. What are the properties of object oriented programming language?
2. Write down the differences between c and c++.
3. What do you mean by call by value and call by reference? Illustrate with an example.
4. Write a simple c++ program to illustrate the concept of class and object.
5. Write short notes on endl and setw.
6. Write a c++ program that will take 10 numbers from user into an array and find out the maximum and minimum number among them.

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**SEM-II 1<sup>st</sup> Internal Assessment Examination- 2019**  
**B.SC. (Hons.)**  
**Subject- CC3 (Practical)**  
**Subject Title- Programming in C++ Lab**  
**Coverage: Serial No-1 to Serial No-10**  
**Submission from 08.03.2019 to 14.03.2019**

**Answer any two(2) questions**

**Maximum Marks: 10**

1. Write an object-oriented programming in C++ to print the sum and product of digits of an integer.
2. Write an object-oriented programming in C++ to compute the sum of the first n terms of the following series  $S = 1 - 2 + 3 - 4 + 5 - \dots$
3. Write a function using object-oriented programming method in C++ that checks whether a given string is Palindrome or not. Use this function to find whether the string entered by user is Palindrome or not.
4. Write a function using object-oriented programming in C++ to find whether a given no. is prime or not. Use the same to generate the Prime numbers less than 100.
5. Write an object-oriented programming in C++ to compute the factors of a given number.
6. Write an object-oriented programming in C++ to perform following actions on an array entered by the user: i) Print the even-valued elements ii) Print the odd-valued elements iii) Calculate and print the sum and average of the elements of array iv) Print the maximum and minimum element of array v) Remove the duplicates from the array vi) Print the array in reverse order The program should present a menu to the user and ask for one of the options. The menu should also include options to re-enter array and to quit the program.

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**SEM-II 1<sup>st</sup> Internal Assessment Examination- 2019**  
**B.SC. (Hons.)**  
**Subject- CC4**  
**Subject Title- Computer System Architecture**  
**Coverage: Unit-1 to Unit- 2**  
**Submission from 08.03.2019 to 14.03.2019**

**Answer any two(2) questions**

**Maximum Marks: 10**

1. Write a short note on fixed point representation.
2. Explain 4 bit magnitude comparator.
3. Design a 2 bit count-down counter. This is a sequential circuit with 2 flip-flops and 1 input X. When X=0, the state of the flip-flops doesn't change. When X=1, the state sequence is 11, 10, 01, 00, 11, and repeat.
4. Discuss IEEE-754 single precession format for floating point representation using suitable example.
5. Show that a J-K flip-flop can be converted to a D flip-flop with an inverter between the J and K inputs.
6. Explain addition and subtraction algorithm for integer numbers.