GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ

PROJECT WORK

SESSION 2020-2021

CLASS 12 B

SUBJECT: COMPUTER SCIENCE

Reference Book: COMPUTER SCIENCE with Java Class 12 By Sumita Arora (Dhanpat Rai & Company)

Website: guideforschools.com,   geeksforgeeks.org

INSTRUCTIONS: The students are expected to write 30 programs in java. The sequence of the programs will be as follows:

1. 4 programs on Strings (display string vertically, sorting the words of sentence, etc.)
2. 4 programs on numbers (magic composite, goldbach, isbn number, etc.).
3. 4 programs on recursion (Fibonacci series, factorial, binary search, anagrams, etc.).
4. 4 programs on operations on files (reading and writing on text files, reading and writing on binary files).
5. 4 programs on data structures (stack as an array, stack as linked list, queue as an array, queue as linked list).
6. 4 programs on inheritance
7. 4 programs on 2-D array (spiral matrix, boundary elements, non boundary elements, sorting rows of matrix, sorting columns of matrix)
8. 2 miscellaneous programs (date programs)

Instructions for writing the project

- The students are expected to execute the above programs on the computer system on BlueJ.
- The project is to be made on MS Word.
- The student should type the algorithm , input processing output (IPO) and variable description on MS Word.
- The sequence for each program should be algorithm, program, variable description and IPO.
- Format of Variable Description:

Name of the variable	Data type	Purpose/Description

- Format of IPO:

INPUT	PROCESSING	OUTPUT

- The font size should be 12.
- The project is to be preceded by acknowledgement and index.
- The format of index is :

S. No.	Program	Page No.	Remark

- No bibliography is required.