

25/5/24



**DOON UNIVERSITY, DEHRADUN**  
**End Semester Examination, IInd Semester, 2024**  
**Academic Year 2023-24 (Even Semester)**  
**School of Physical Science, Department Name - Generic**  
**Programme Name - Bachelor of Science (Hons/with Research)**  
**Course Code with Title: CSG153 - Programming using Python**

Time Allowed 2.00 Hours

Maximum Marks: 30

**SECTION: A**

**(Each question of this section carry 2 marks)**

1. \_\_\_\_\_ library is used to read data from csv files.
2. Does Python employ the concept of function overloading?(T/F)
3. What is the result for  $A[1:2,0:1]$  from the given array  $A$ ?

$$A = \begin{bmatrix} 15 & 16 & 17 \\ 25 & 26 & 27 \\ 35 & 36 & 37 \end{bmatrix}$$

4. \_\_\_\_\_ inheritance contains one derived class and two or more base classes.
5. Which method is used to display the top five rows of the tabular data?  
a) head() b) tail() c) seek() d) sort()

**SECTION: B**

**(Each question of this section carry 4 marks)**

1. What is Function Overriding? In which type of polymorphism, function overriding comes under? Write a program to explain the concept of function overriding?
2. Write a program to read data from a "temp.csv" file. Display the last five rows from the data. Draw line graph and bar graph for the "temp.csv" file. Give title, label to x and y axis and label to our plotted graph.

temp.csv

Week(w)	Average Temperature(at)
1	32
2	40
3	36
4	46
5	37
6	30
7	45

**SECTION: C**

**(Each question of this section carry 6 marks)**

1. What is Hierarchical Inheritance? Where this type of inheritance is used? Explain with the help of a suitable program?
2. What are modules? Create two modules "calc1.py" and "calc2.py". First module has an "add" and "subtract" function and the second module has an "multiply" and "divide" function. Access all these functions with the help of third module "result.py" Here we perform operation for two variables a and b.