**Practical File**

**PYTHON LAB (BCAP-211)**

*Submitted in partial fulfilment of the requirements*

*For the award of the degree of*

**Bachelor of Computer Applications**

**Guru Gobind Singh Indraprastha University, Delhi**

**Submitted to: Submitted by:**

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**Batch (2021 - 2024)**

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| **S.NO** | **Problem Statement** | **Dates** | **Teach. Sign** |
| **1** | Write a program to enter two integers, two floating numbers and then perform all arithmetic operations on them. | 16/Sep/22 |  |
| **2** | Write a program to check whether a number is an Armstrong number or not. | 16/Sep/22 |  |
| **3** | Write a python program to that accepts length of three sides of a triangle as inputs. The program should indicate whether or not the triangle is a right angled triangle (use Pythagorean theorem). | 16/Sep/22 |  |
| **4** | Write a python program to find factorial of a number using recursion. | 23/Sep/22 |  |
| **5** | Write a program to print the sum of all the primes between two ranges. | 23/Sep/22 |  |
| **6** | Write a python program to construct the following pattern using nested for loop.  \*  \*\*  \*\*\*  \*\*\*\*  \*\*\*\*\* | 30/Sep/22 |  |
| **7** | Write a program to swap two strings. | 30/Sep/22 |  |
| **8** | Write a Program to Count the Occurrences of Each Word in a Given String Sentence. | 30/Sep/22 |  |
| **9** | Write a program to create, concatenate and print a string and accessing substring from a given string. | 07/Oct/22 |  |
| **10** | Write a menu driven program to accept two strings from the user and perform the various functions using user defined functions. | 07/Oct/22 |  |
| **11** | Write a program to find smallest and largest number in a list. | 14/Oct/22 |  |
| **12** | Write a Program to Remove the ith Occurrence of the Given Word in a List. | 14/Oct/22 |  |
| **13** | Create a dictionary whose keys are month names and whose values are the number of days in the corresponding months.  •Ask the user to enter a month name and use the dictionary to tell them how many days are in the month.  •Print out all keys in the alphabetically order  •Print out all the months with 31 days  •Print out the key value pairs sorted by number of days in each month. | 21/Oct/22 |  |
| **14** | Make a list of ten letters of alphabets then use the slicing to perform the following operation:   * Print the first 3 letters of the list. * Print any three letters from the middle. * Print the letter from any particular index to the end of the list. | 21/Oct/22 |  |
| **15** | Write a program that scans an email address and forms a tuple of user name and domain. | 28/Oct/22 |  |
| **16** | Write a program that uses a user defined function that accepts name and gender (as M for Male, F for Female) and prefixes Mr./Ms. on the basis of the gender. | 28/Oct/22 |  |
| **17** | Write a Program to Sort a List of Tuples in Increasing Order by the Last Element in Each Tuple. | 04/Nov/22 |  |
| **18** | Write a Program to Swap the First and Last Element in a List. | 04/Nov/22 |  |
| **19** | Write a program to display Bar graphs or Pie chart using Matplotlib. | 04/Nov/22 |  |
| **20** | Write a program that defines a function large in a module which will be used to find larger of two values and called from code in another module. | 11/Nov/22 |  |
| **21** | Write a python program to define a module to find Fibonacci Numbers and import the module to another program. | 11/Nov/22 |  |
| **22** | Write a program to know the cursor position and print the text according to specifications given below:  ● Print the initial position  ● Move the cursor to 4th position  ● Display next 5 characters  ● Move the cursor to the next 10 characters  ● Print the current cursor position  ● Print next 10 characters from the current cursor position | 18/Nov/22 |  |
| **23** | Create a binary file with roll number, name and marks. Input a roll number and perform the following operations:  • update the marks.  • Delete the record  • Display the record  • Append the record  • Search the record | 18/Nov/22 |  |
| **24** | Write a program to Create a CSV file by entering user-id and password, read and search the password for given user id. | 25/Nov/22 |  |
| **25** | Write a Program to Count the Number of Words in a Text File. | 02/Dec/22 |  |
| **26** | Write a Program to Count the Number of Lines in Text File. | 02/Dec/22 |  |
| **27** | Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order. | 02/Dec/22 |  |
| **28** | Write a Python class to implement pow(x, n). | 16/Dec/22 |  |
| **29** | Write a program to create a numpy array. | 16/Dec/22 |  |
| **30** | Write a program to Extract first n columns of a Numpy matrix. | 16/Dec/22 |  |
| **31** | Write a program to sum all elements in a NumPy array. | 23/Dec/22 |  |
| **32** | Write a program to add a list to a NumPy array. | 23/Dec/22 |  |
| **33** | Write a program of Numpy convert 1-D array with 8 elements into a 2-D array in Python. | 23/Dec/22 |  |

Ms. Leena Gupta Prof. (Dr.) Sudhir Kumar Sharma

***Subject Faculty HOD - CS***