**KENDRIYA VIDYALAYA SANGTHAN**

**SAMPLE PAPER**

**COMPUTER SCIENCE (083)**

**CLASS –XII**

**MM.-70 TIME:3 HRS**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | (a) | Which of the following can be used as valid variable identifier(s) in Python?  (i) dayofweek  (ii) Unit\_per\_day  (iii) Roll#No  (iv) D.O.B | 2 |
|  | (b) | Name the Python Library modules which need to be imported to invoke the following functions   * + 1. ceil()   (ii)findall() | 1 |
|  | (c) | Rewrite the following code in python after removing all syntax error(s).Underline each correction done in the code.  x=int(“Enter value for x:”))  for in range[0,11]  if x=y  print x+y  else:  Print x-y | 3 |
|  | (d) | Find and write the output of the following python code:  Text=”gmail@com”  l=len(Text)  ntext=” “  for I in range (0,1):  if Text[i].isupper():  ntext=ntext+Text[i].lower()  elif Text[i].isalpha():  ntext=ntext+Text[i].upper()  else:  ntext=ntext+’bb’  print (ntext) | 2 |
|  | (e ) | Find and write the output of the following python code:  L1 = [100,900,300,400,500]  START = 1  SUM = 0  for C in range(START,4):  SUM = SUM + L1[C]  print(C,":",SUM)  SUM = SUM + L1[0]\*10  print(SUM) | 2 |
|  | (f) | Study the following program and select the possible output(s) from the options (i) to (iv) following it. Also, write the maximum and the minimum values that can be assigned to the variable Y. (2) import random  X= random.random()  Y= random.randint(0,4) print(int(X),":",Y+int(X))  (i) 0 : 0 (ii) 1 : 6  (iii) 2 : 4 (iv) 0 : 3 | 2 |
| 2 | (a) | List one similarity and one difference between List and Dictionary data type. | 2 |
|  | (b) | Write recursive code to compute greatest common divisor of two numbers. | 2 |
|  | (c) | Write a function that takes a positive integer and returns the one’s position digit of the integer. | 2 |
|  | (d) | What is the worst-case complexity of the following code fragment having a nested loop followed by a single loop:  for i in range(n):  for j in range(n):  sequence of statements  for k in range(n):  sequence of statements | 2 |
|  | (e) | Write a recursive program to implement binary search algorithm. | 2 |
| 3 | (a) | Write a method in python to read lines from a text file MYNOTES.TXT, and display those lines, which are starting with an alphabet ‘K’. | 3 |
|  | (b) | Write the specific pupose of functions used in ploting   1. Shape() 2. Legend() | 2 |
|  | (c) | Write a python program to plot the function y=x2. | 2 |
|  | (d) | Write definition of a Method MSEARCH(STATES) to display all the state names  from a list of STATES, which are starting with alphabet M.  For example:  If the list STATES contains  ["MP","UP","WB","TN","MH","MZ","DL","BH","RJ","HR"]  The following should get displayed  MP  MH  MZ | 3 |
|  | ( e) | Differentiate between file modes r+ and w+ with respect to Python | 2 |
| 4 | (a) | Write about types of network depending upon geographical location | 1 |
|  | (b) | Write down difference between private cloud and public cloud | 2 |
|  | (c) | Write one restriction of wired and one wireless networks | 2 |
|  | (d) | How IP address differ from MAC address? | 2 |
|  | (e) | Expand the following terms:   1. MAC 2. DNS 3. URL | 3 |
| 5 | (a) | Wtite difference between IP v-4 and IPv-6 | 2 |
|  | (c) | Write the purpose of following commands   1. Whoish 2. Ipconfig 3. Nslookup | 3 |
|  | (d) | (b) Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (vii), which are based on the table.  Table:Transact   |  |  |  |  |  | | --- | --- | --- | --- | --- | | TRNO | ANO | AMOUNT | TYPE | DOT | | T001 | 101 | 2500 | Withdraw | 2017-12-21 | | T002 | 103 | 3000 | Deposit | 2017-06-01 | | T003 | 102 | 2000 | Withdraw | 2017-05-12 | | T004 | 103 | 1000 | Deposit | 2017-10-22 | | T005 | 101 | 12000 | Deposit | 2017-11-06 | | 5 |
|  | (i) | To display minimum amount transaction from the table |  |
|  | (ii) | To display total amount withdrawn from table. |  |
|  | (iii) | To display number of deposited transaction. |  |
|  | (iv) | To display display ANO,DOT, AMOUNT for maximum amount transaction |  |
|  | (v) | SELECT ANO, COUNT(\*), MIN(AMOUNT) FROM TRANSACT  GROUP BY ANO HAVING COUNT(\*)> 1 |  |
|  | (vi) | SELECT COUNT(\*), SUM(AMOUNT) FROM TRANSACT  WHERE DOT <= '2017-06-01'; |  |
| 6 | (a) | Is the Django installation as same as other packages? | 2 |
|  | (b) | Start project command creates four basicDjango project in Directory. Writeany two file Names. | 2 |
|  | (c) | What is Django? | 2 |
|  | (d) | Write difference between GET and POST method. | 2 |
| 7 | (a) | What are the environmental issues of e-waste? | 2 |
|  | (b) | What do you understand by the term Plagiarism? Write 2 software’s used as Plagiarism checker. | 3 |
|  | (c) | What is Identity Theft? How to prevent this? | 3 |
|  | ( d) | List down some points about Societal changes introduced by technology | 2 |

HOLIDAY HOME WORK CLASS XII

AUTUMN BREAK

LIST OF PRACTICALS (2019-20) CLASS-XII

Programming Language : Python

|  |  |
| --- | --- |
| **S.**  **No.** | **NAME OF PRACTICAL** |
| 1 | Write a program in python to check a number whether it is prime or not. |
| 2 | Write a program to check a number whether it is palindrome or not. |
| 3 | Write a program to calculate compound interest. |
| 4 | Write a program to display ASCII code of a character and vice versa. |
| 5 | Write a program to input a character and to print whether a given character is an alphabet, digit  or any other character. |
| 6 | Write a program to calculate the factorial of an integer using recursion. |
| 7 | Write a program to print fibonacci series using recursion. |
| 8 | Write a program for binary search. |
| 9 | Write a recursive pyhton program to test if a string is palindrome or not. |
| 10 | Write a program to count the number of vowels present in a text file. |
| 11 | Write a program to write those lines which have the character 'p' from one text file to another  text file. |
| 12 | Write a program to count number of words in a file. |
| 13 | Write a python function sin(x,n) to calculate the value of sin(x) using its taylor series expansion up to n terms. |
| 14 | Write a program to generate random numbers between 1 to 6 and check whether a user won a  lottery or not. |
| 15 | Write a program to create a library in python and import it in a program. |
| 16 | Write a program to plot a bar chart in python to display the result of a school for five consecutive  years. |
| 17 | Write a program in python to plot a graph for the function y = x^2 |
| 18 | Write a program in python to plot a pie chart on consumption of water in daily life. |
| 19 | Write a program for linear search. |
| 20 | Write a program for bubble sort. |
| 21 | Write a menu based program to perform the operation on stack in python. |
| 22 | Write a menu based program to perform the operation on queue in python. |
| 23 | Write a menu based program for circular queue. |
| 24 | Create a graphical calculator using tkinter library. |
| 25 | Write a program to open a webpage using urllib library. |
| 26 | Write a program to calculate EMI for a loan using numpy. |
| 27 | Write a program to find the most common words in a file. |
| 28 | Write a program to perform read and write operation with .csv file. |
| 29 | Write a Django based web application and write the data to a csv file. |
|  | **SQL Queries :** |
| 30 | Queries using DISTINCT, BETWEEN, IN, LIKE, IS NULL, ORDER BY, GROUP BY,  HAVING |
| 31 | Queries for Aggregate functions- SUM( ), AVG( ), MIN( ), MAX( ), COUNT( ) |
| 32 | Write a program to connect Python with MySQL using database connectivity and perform the  following operations on data in database: Fetch, Update and delete the data |