*Half Yearly Examination 2019*

XI

computer science -083

*Time: Hours MM 70*

Note: This question paper contains **seven questions** only and four pages.

Write proper question numbers in answer sheet.

|  |  |  |
| --- | --- | --- |
| Q1 a | Name the operators given below (**any two**)  >=,==,<= (ii) +,-,\*,//,% (iii) and ,or | 2 |
| b) | Design the Boolean circuit for this expression  A.B’+B’.C’+C.A’ | 1½ |
| C) | Write the expression for the given circuit below.  images.png | 1½ |
| d) | i. (1110101)2=(?)10  ii. (365)8=(?)10  iii. (ABBC)16=(?)10 iv. (876)10=(?)8 | 6 |
| Q2 | Consider the string str="**Green Revolution**" write the statement in Python to implement the following.   1. To display the last four character 2. To display the index of ‘**t’** 3. To check whether the string vol is present or not 4. Repeat the string three times | 2 |
| Q3 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Write SQL commands based on following table from (i) to (vi) and output from(vii)to (x)   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **RollNo** | **Name** | **Class** | **DOB** | **Gender** | **City** | **Marks** | | 1 | Nanda | X | 6/6/95 | M | Agra | 551 | | 2 | Saurabh | XII | 7/5/93 | M | Mumbai | 462 | | 3 | Sana | XI | 6/5/94 | F | Delhi | 400 | | 4 | Trisha | XII | 8/8/95 | F | Mumbai | 450 | | 5 | Nishant | XII | 8/10/95 | M | Delhi | 369 | | | 1. To Display all information about class XII students. 2. List the name of male student of class X. 3. List names and class of all students in descending order of DOB. 4. Delete student of class XII Class who live in of Mumbai city. 5. Increase marks of all students by 5 6. Add one more column House of type char(10)   **Output**   1. SELECT DISTINCT(Gender ) FROM Student. 2. Select Name ,City from student where name like “%a” 3. Select count(\*) from student 4. SELECT avg(Marks) FROM Student where city=’Mumbai’. | | 10 |
| Q4 a) | Write the output of the following  l1=[500,600]  l2=[35,45]  l1.append(700)  l1.extend(l2)  l1.insert(25,2)  print(l1)  print(l1+l2)  print(l1.index(35))  print(l2\*2) | 2 |
| b) | L1=[‘Vinay’, 'Sonia’, 'Shaurya’, ’Radhika’]  Using **insert()** function add a new name ‘Deepak’ at position 2nd | 1 |
| c) | Mahesh have the following list  L1=[‘Vinay’, ’Sonia’, ‘Shaurya’, ‘Radhika’]  He wants the following output( given below) how is this possible or what command he will apply .  L1=[ ‘Radhika’,‘Shaurya’,’Sonia’,‘Vinay’] | 1 |
| d) | Suppose L=[“abc”,[6,7,8],3,'mouse']  Consider the above list and answer the following   1. L[3:] b) L[::2] c)L[1;2] d l[1][2] | 4 |
| Q5 a) | Write the program in Python to generate the series.  **Using loops only** |  |
|  | 1. 1,8,27,64,125 | 2 |
|  | 1. 2,5,7,11,13,17,19,23 | 2 |
|  | 1. 1,2,3,5,8,13,21 | 2 |
| b) | Write the program in Python to generate the following patterns. **Using loops only** |  |
|  | 1. 1   22  333  4444  55555 | 2 |
|  | 1. @   @@  @@@  @@@@  @@@@@   1. d   d m  d m p  d m p s | 2  2 |
|  |  |  |
| Q6a | Write the most appropriate method to perform the following task.   1. Delete the third element of a list 2. Add single element at the end of list | 1  1 |
| b) | What will be the status of a list after fourth pass in Insertion/Bubble sort.  12,14,54,64,90,24 | 2+2 |
| c) | What is tuple give one example and how it is different from list | 2 |
| d) | If there is a tuple =(10,20,30,40,50,60)  Perform the following operation in it (any three)   1. Slicing ii) Membership iii) Len   iv) Count v) max | 6 |
| Q7a | What will be the output of the following code if x=”Amazing”   1. print(x[3:],’and’,x[:2]) 2. print(x[-7:],’and’,x[-4:-2]) 3. Print(x[2:7],’and’,x[-4:-1]) | 3 |
| b) | Write the program for the following formula  m=  (c.t2+i.m3)2  260+z |  |
| c) | Write a program for students it will take five subjects marks and find the total of all the subjects marks also find the percentage of the student. | 3 |
| d) | Write the program for Fibocaii series | 2 |
| e) | Write a program in Python user will input numbers of product and cost of product it will calculate amount paid by customer if amount is more than Rs 2000/, 5% discount will be given. | 3 |