

Kendriya Vidyalaya Sangathan: Raipur Region

Session Ending Examination – 2019

Subject – Computer Science (Theory) 083

CLASS – XI

Time : 03 Hrs.

MM : 70

General Instruction:

1. This Question Paper contains Total 6 Questions.
2. Attempt all questions.
3. Please Write Question number before attempting it.

| | | |
|--------|--|---|
| 1. (A) | Hear $c=0+4.5j$ is a complex number, write python command to find imaginary part. | 1 |
| (B) | What do you mean by expressive language? Explain it with python example ? | 2 |
| (C) | State Output of the following python program. <code>t1=(5,7,3,9,12)</code> <code>len(t1)</code> <code>t1.index(12)</code> | 2 |
| (D) | Under line the errors & Re-write the correct python code : <code>num=int (input["Enter an integer (>1000):"])</code> <code>tnum=num</code> <code>reverse=0</code> <code>while tnum</code> <code> digit=tnum%10</code> <code> tnum=tnum/10</code> <code> reverse = reverse * 10 + digit</code> <code>print("Reverse of ",num,"is",reverse)</code> | 2 |
| (E) | Write command to reverse the given tuple : <code>x = (15, 110,115, 120)</code> | 2 |
| (F) | Write a Python Script to calculate sum of following Series: $S= (1)+(1+2)+(1+2+3)+\dots+(1+2+3+\dots+n)$ | 3 |
| 2. (A) | Which of the following are not valid strings in Python ? (A) "Hello" (B) 'Hello' (C) "Hello' (D) 'Hello" (E) {Hello} | 1 |
| (B) | Write a program to print the following using a single loop (no nested loops) 1 11 111 1111 11111 | 2 |

| | | |
|--------|--|---|
| (C) | Write any two difference between LIST and TUPLES in python? | 2 |
| (D) | Why exception handling required ? | 2 |
| (E) | Convert the following: 1. (FACE) ₁₆ to binary 2. (72905) ₁₀ to decimal binary | 2 |
| (F) | Write a python program that reads a string and checks whether it is a palindrome string or not? | 3 |
| 3. (A) | What are state transition diagrams? | 1 |
| (B) | What is the role of CPU of a mobile system? | 2 |
| (C) | Draw the Logic Circuit for Boolean expression (A+B).(C+D) using only NOR gate : | 2 |
| (D) | State and Prove Both DeMorgan's Laws using Truth Table | 2 |
| (E) | What is cloud computing ? | 2 |
| (F) | Examine the following code and give the answer of given below question: Numlist = eval(input("Enter list :")) pos=0 odds=evens=0 length=len(numlist) while pos<length: if numlist[pos]%2==0: evens=evens+1 else: odds=odds+1 if odds>evens: print("Balanced oddity") (a) What is this program calculating ? (b) What does the program for the list [1,5,2,3,6,6,9] ? (c) What does the program print for the list [2,5,2,3,6,6,9] ? how can we fix this ? | 3 |
| 4. (A) | What will be the output of following code? x,y=2,6 x,y=y,x+2 print(x,y) | 1 |
| (B) | Re-Write the code fragments using for loop: x=0 while x<5: x=x+1 print (x) | 2 |
| (C) | State output produced by the following code statements? (i) 87//5 (ii) 87//5.0 | 2 |

| (D) | <p>Consider the following python program:</p> <pre>N = int(input("Enter N:")) i=1 sum=0 while i< N : if i%2==0: sum=sum+1 i=i+1 print (sum)</pre> <p>(a) What is the output when input values is 5? (b) What is the output when input values is 0?</p> | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|--|------------|----------|------------|----------|--------|------|---------|------|-----|---------|------|------------|------|-----|------------|------|-------|------|-----|---------|------|-------|------|-----|----------|------|----------|------|-----|----------|-------------------|
| (E) | <p>State output of the following python statement:</p> <pre>>>> string = 'hello' >>> string1 = " "</pre> <p>(a) >>>string.islower() (b) >>>string.isspace()</p> | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (F) | <p>Write a program to sort a sequence using insertion sort :</p> <pre>aList = [15,6,13,22,3,52,2]</pre> | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 (A) | Define NoSQL database? | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (B) | What do you mean by comments in MySQL? | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (C) | Write one advantage and one disadvantage of NoSQL database? | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (D) | What do you mean by Primary Key and Candidate Keys? | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (E) | <p>Consider the following table names EXAM with details of marks. write command of MySQL for (i) to (IV) and Output for (v) to (VII).</p> <p style="text-align: center;">Table : EXAM.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Adno</th> <th>SName</th> <th>Percentage</th> <th>Csection</th> <th>Stream</th> </tr> </thead> <tbody> <tr> <td>R001</td> <td>Sushant</td> <td>90.2</td> <td>12A</td> <td>Science</td> </tr> <tr> <td>R002</td> <td>Vaidyanath</td> <td>80.5</td> <td>12B</td> <td>Humanities</td> </tr> <tr> <td>R003</td> <td>Miara</td> <td>68.9</td> <td>12B</td> <td>Science</td> </tr> <tr> <td>R004</td> <td>Niara</td> <td>96.0</td> <td>12A</td> <td>Commerce</td> </tr> <tr> <td>R005</td> <td>Shinjini</td> <td>88.9</td> <td>12D</td> <td>Commerce</td> </tr> </tbody> </table> <p>(i) To display all information of the students of humanities in descending order of percentage. (ii) To display Adno, Name, Percentage and Stream of those students whose name is less than 6 characters long. (iii) To add another column BusFees with datatype and size as decimal (8,2). (iv) To increase percentage by 2% of all the humanities students.</p> | Adno | SName | Percentage | Csection | Stream | R001 | Sushant | 90.2 | 12A | Science | R002 | Vaidyanath | 80.5 | 12B | Humanities | R003 | Miara | 68.9 | 12B | Science | R004 | Niara | 96.0 | 12A | Commerce | R005 | Shinjini | 88.9 | 12D | Commerce | 4 + 2 =6 |
| Adno | SName | Percentage | Csection | Stream | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R001 | Sushant | 90.2 | 12A | Science | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R002 | Vaidyanath | 80.5 | 12B | Humanities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R003 | Miara | 68.9 | 12B | Science | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R004 | Niara | 96.0 | 12A | Commerce | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R005 | Shinjini | 88.9 | 12D | Commerce | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- (v) SELECT COUNT(*) FROM EXAM;
- (vi) SELECT Sname, Percentage FROM EXAM WHERE Name LIKE "N%";
- (vii) SELECT ROUND(Percantage,0) FROM EXAM WHERE Adno="R005";
- (viii) SELECT LENGTH(SName) FROM EXAM;

6 (A) What do you mean by eavesdropping ? 1

(B) What is the need for secure passwords ? 2

(C) Write MySQL Command to Create table CAND with the following specification : 2

| Filed Name | Type | Width | Description |
|------------|-----------|-------|--|
| CNUM | Character | 8 | Unique candidate number of the candidate |
| CNAME | Character | 30 | Name of Candidate |
| DOB | Date | | Date of Birth of the candidate |

(D) Define the following cybercrimes : 2
 (1) Cyber bullying
 (2) Cyber stalking

(E) Define the following: 3
 (i) Cross Join
 (ii) Left Join
 (iii) Equi Join