

THE ARMY PUBLIC SCHOOL, DHAULA KUAN
ANNUAL EXAMINATION (2018-19)
CLASS : XI
SUBJECT : COMPUTER SCIENCE (083)

TIME : 3 HRS

MM: 70

General Instructions :

1. All questions are compulsory. Programming language : Python
2. Repetition of solution is not allowed.
3. Write the correct serial number of the question before attempting it.
4. Leave 1-2 line gaps before starting a new answer.

Q1. Write the difference between the following with examples each : (3 X 2)

- a) List and Tuple
- b) System Software and Application Software.
- c) Update and Alter table commands in SQL

Q2. Find the errors in the following code: (2)

(a) temp=90
print temp

(b) a=12
b = a + b
print(a And b)

(c) a, b, c=2, 8, 4
print(a, b, c)
c, b, a = a, b, c
print(a; b; c)

(d) print("x="x)

Q3. If t1=['a','e','u'] , what will the following evaluate to (taking initial value each time) if we print(t1) (3)

- | | | |
|---------------------|-------------------|------------------|
| a) t1.insert(2,'i') | b) t1.pop(0) | c) t1.reverse() |
| a) t1.count('e') | d) t1.append('j') | e) t1[1]='f' |

Q4. Write the output for the following : (5)

```
a) d = {0: 'a', 1: 'b', 2: 'c'}  
for i in d:  
    print(i)
```

```
b) for i in range(5):  
    if i == 5:  
        break  
    else:  
        print(i)  
else:  
    print("Here")
```


Q9. Write SQL queries for (i) to (iv) which are based on the following tables

(4)

DVD

DCODE	DTITLE	DTYPE
F101	Henry Martin	Folk
C102	Dhrupad	Classical
C101	The Planets	Classical
F102	Universal Soldier	Folk
R102	A day in life	Rock

MEMBER

MID	NAME	DCODE	ISSUEDATE
101	AGAM SINGH	R102	2017-11-30
103	ARTH JOSEPH	F102	2016-12-13
102	NISHA HANS	C101	2017-07-24

- (i) To display all details from the table MEMBER in descending order of ISSUEDATE.
- (ii) To display the DCODE and DTITLE of all Folk Type DVDs from the table DVD.
- (iii) To display all NAME and ISSUEDATE of those members from the table MEMBER who have DVDs issued (i.e., ISSUEDATE) in the year 2017.
- (iv) To display the data from both the tables having the same DCODE.

Q10. Consider the following tables SCHOOL and ADMIN and answer (a) and (b) :

(4 + 4)

Table : SCHOOL

Code	TeacherName	Subject	DOJ	Periods	Experience
1001	Ravi Shanker	English	12/03/2000	24	10
1009	Priya Rai	Physics	03/09/1998	26	12
1203	Lisa Anand	English	09/04/2000	27	5
1045	Yashraj	Maths	24/08/2000	24	15
1123	Ganan	Physics	16/07/1999	28	3
1167	Harish B	Chemistry	19/10/1999	27	5
1215	Umesh	Physics	11/05/1998	22	16

Table : ADMIN

CODE	GENDER	DESIGNATION
1001	Male	Vice Principal
1009	Female	Coordinator
1203	Female	Coordinator
1045	Male	HOD
1123	Male	Senior Teacher
1167	Male	Senior Teacher
1215	Male	HOD

- (a) Write SQL statements for the following:
 - (i) To display TeacherName, Periods of all teachers whose periods are more than 25.
 - (ii) To display all the information from the table SCHOOL in descending order of experience.

- (iii) To display DESIGNATION without duplicate entries from the table ADMIN.
- (iv) To display TeacherName, CODE and corresponding DESIGNATION from tables SCHOOL and ADMIN of only Male teachers.

(b) Give the output of the following SQL queries :

- (i) select DESIGNATION, CODE from ADMIN where CODE in ('1001','1203','1215');
- (ii) select TeacherName ,Experience from SCHOOL where Experience between 5 and 15;
- (iii) select TeacherName from SCHOOL where Periods> 26 order by TeacherName;
- (iv) select * from SCHOOL NATURAL JOIN ADMIN;

Q11. Write SQL commands for the following in table STUDENT (STID, SNAME, AGE, FEES) (4)

- a) Delete the student from STUDENT table with STID='2101'
- b) Change the name of student 'Anusha' to 'Anuradha'. Update her age to 20 as well.
- c) Increase the fees of all students getting 'E' grade by 2500.
- d) Add a new field CLASS and display a default value 9 for all the students.

Q12. Differentiate between : (2)

- b) DROP and DELETE in SQL.
- c) Primary Key and Alternate Key

Q13. Write a python program each for the following: (6)

- a) To calculate and print the minimum element from a given list of n numbers.
- b) To count and print the frequency of a character in a given string. The character is input by the user.
- c) To print the factorial of an integer input by the user.

Q14. Write a python program to input names of 'n' countries and their capital. Store it in a dictionary and display the complete data in a tabular format. (2)

Q15. What will be returned by Python as a result of following statements: (4)

- | | | |
|------------------------------------|---------------------------|-------------------|
| a) >>>type(0) | b) >>>type('0') | c) >>>type(1.0) |
| d) >>>str(print('hello')) + "one" | e) print(len(str(17//4))) | |
| e) >>>14.0%4 | f) 12/4 | g) print(a=3+5/8) |

Q16. Write a program in Python to input an integer and print it's reverse and also the sum of it's digits.

That is if the number input is 25 , it should print 52 and 7. (3)

Q17. Write a python program to print the following using loops : (3)

```
4321
432
43
4
```

Q18. Write a python program for the following: (4)

- a) A tuple containing squares of the integers 1 through 50.
- b) Input two tuples and create a third , that contains all elements of the first followed by the elements of the second.