

## XII CS QUESTION BANK FOR BRIGHT STUDENTS CHAPTER WISE SET-I

- Q.1 Python Program to find the area of triangle.
- Q.2 Python Program to calculate the square root.
- Q.3 Python program to swap two variables.
- Q.4 Program to find Greatest between two Numbers.
- Q.5 Program to check whether the given Year is Leap Year.
- Q.6 Program to Calculate Grade.
- Q.7 Program to find greatest among Three Numbers.
- Q.8 Program to check whether the no. is Even or Odd.
- Q.9 Program to Calculate A to the power B.
- Q.10 Program to print Fibonacci Series 0, 1, 1, 2, 3, 5, 8, 13.....
- Q.11 Program to print Multiplication Table of a Given Numbers
- Q.12 Program to check whether the given no. is Prime or not
- Q.13 Program to Calculate Factorial of a given Number
- Q.14 Program to print First 10 Natural Numbers in reverse Order.
- Q.15 Program to find smallest among given numbers
- Q.16 Program to check whether the given number is an Armstrong Number
- Q.17 Program to print series of Prime Numbers between 1 to 100
- Q.18 Write a Python program to get the smallest number from a list
- Q.19 Write a Python program to sum all the items in a list.
- Q.20 Write a Python program to get the largest number from a list.
- Q.21 Write a Python program to remove duplicates from a list
- Q.22 Write a Python program to check a list is empty or not
- Q.23 Program to count numbers in a List
- Q.24 Program to find average of numbers in a List
- Q.25 Program to find maximum among N numbers in a List
- Q.26 Program to find minimum among N numbers in a List
- Q.27 Program to search a number in the list (Linear Search)
- Q.28 Program to arrange numbers in ascending order using Bubble Sort Method
- Q.29 Program to arrange numbers in ascending order using Insertion Sort Method
- Q.30 Program to arrange numbers in ascending order using Selection Sort Method
- Q.31 Give the output of the following code:-

```
list=['p','r','o','b','l','e','m']
```

```
list[1:3]=[]
print(list)
list[2:5]=[]
print(list)
```

Q.31 Give the output of the following code:-

```
l1=[13,18,11,16,13,18,13]
print(l1.index(18))
print(l1.count(18))
l1.append(l1.count(13))
print(l1)
```

Q.32 WAP in python to create a list of natural numbers from 1 to 50 using for loop.

Q.33 WAP in python to take two lists of same size and create a third list of same size with adding elements at the same location of 1st & 2nd list. E.g. if A=[1,2,3], B= [4,5,6], then C[5,7,9].

Q.34 WAP in Python to accept any ten numbers from the user in a list and display the maximum number along with its position.

Q.35 WAP in Python to calculate & display the factorial of all elements of an integer list.

Q.36 Predict the output of the following code in python:

```
T1=(1,)*3
T1[0]=2
Print(T1)
```

Q.37 Predict the output of the following code in python:

```
TupleA='m','n'
TupleB=('m', 'n')
Print(TupleA==TupleB)
```

Q.38 WAP in Python to create a phone dictionary for your ten friends and then print them in format: name of friend: mobile number

Q.39 Predict the output of the following code in python:

```
Fruit = { }
L = ['Orange', 'Apple', 'Grapes']
For index in L:
    If index in Fruit:
        Fruit [index]+=1
    else:
        Fruit[index]=1
print(len(Fruit))
print(Fruit)
```

Q.40 What is a class in python?

Q.41 Write a program to demonstrate a class in Python.

Q.42 What is a module in python?

Q.43 Make a module in python named mensuration containing a class Shapes and this class shape is having the functions of area of different shapes.

Q.44 How to make a user defined function in python?

Q.45 Write a program in python to calculate the factorial of a given number using user defined function.

Q.46 use map function to calculate sum of two integers.

Q.47 Describe the Use of Reduce and filter function

Q.48 Describe the Use of lambda function

Q.49 how do we use packages in Python?

Q.50 Write a complete program in python to calculate the result of a student after giving the marks in physics, chemistry and maths. Use appropriate module, class and user defined function in this program.

### **Data Management (DM-1)**

- Write a minimal Django based web application that parses a GET and POST request, and writes the fields to a file – flat file and CSV file.
- Interface Python with an SQL database
- SQL commands: aggregation functions, having, group by, order by.

Q.1) Is Django a Frame Work or Language ?

Q.2) Write advantages of using Django?

Q.3) What is Django MVC-MVT Pattern?

Q.4) Write command to start a project in Django?

Q.5) Expand CRUD?

Q.6) What is View function in Django?

Q.7) What is URL Mapping?

Q.8) Explain Render Function ?

Q.9) What is Purpose of Tags?

Q.10) What is PyMySQL?

Q.11) How to Install PyMySQL?

Q.12) What are prerequisites before connecting database?

Q.13) How to save changes permanently in database?

Q.14) How to undo changes made in database?

Q.15) Write difference between Get and Post method?

Q.16) Name command to terminate database connection?

Q.17) What is Default User name and Password for TESTDB?

Q.18) What is Aggregate Function ?

Q.19) Name all aggregate functions?

Q.20) Will Max() and Min() work on Alphabets?

Q.21) Will Sum() and Avg() works on Alphabets ?

Q. TABLE EMP:

Code	Name	Sal
E1	RAJKUMAR	NULL
E2	SUCHITRA	4500
E3	YOGENDRA	NULL
E4	SUSHIL KR	3500
E5	LOVELY	4000

Q.22) Select Sum(Sal) from EMP;

Select Min(Sal) from EMP;

Q.23) Select Max(Sal) from EMP;

Select Count(Sal) from EMP;

Q.24) Select Avg(Sal) from EMP;

Select Count(\*) from EMP;

Select Count(Code) from EMP;

Q.25) Write difference between Group By Clause and Having Clause ?

- 1) Define Django. Explain different features of Django.
- 2) Why should Django be used for web development? Explain with example.
- 3) Write a minimal Django based web application that parses a GET and POST request, and writes the fields to a file – flat file and CSV file.
- 4) How can you interface python with an SQL database? Explain.

Consider the CUSTOMERS table having the following records:

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

- 5) Write a SQL query to display all records in ascending order of name.
- 6) Write a SQL query to display all records in descending order of name.
- 7) Write a SQL query to display all records in ascending order of name, descending order of age.
- 8) Write a SQL query to display maximum salary.
- 9) Write a SQL query to display minimum salary.
- 10) Write a SQL query to display total number of records.
- 11) Write a SQL query to display average salary.
- 12) Write a SQL query to display total salary of all the persons.
- 13) Write a SQL query to display name of those persons whose salary is greater than average salary.
- 14) Write a SQL query to display details of those persons whose age is less than average age.

Consider the following tables WORKER and PAYLEVEL and answer the questions:

Table: WORKER

ECODE	NAME	DESIG	PLEVEL	DOJ	DOB
11	Sachin Patel	Supervisor	P001	13- Sep- 2004	23-Aug-1985
12	Chander Nath	Operator	P003	22-Feb-2010	12-Jul-1987
13	Fizza	Operator	P003	14-Jun-2009	14-Oct-1983
15	Ameen Ahmed	Mechanic	P002	21-Aug-2006	13-Mar-1984

18	Sanya	Clerk	P002	19-Dec-2005	09-Jun-1983
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Table: PAYLEVEL

PLEVEL	PAY	ALLOWANCE
P001	26000	12000
P002	22000	10000
P003	12000	6000

- 15) To display the details of all WORKERs in descending order of DOB.
- 16) To display the PLEVEL and number of workers in that PLEVEL.
- 17) To display the PLEVEL and number of workers in that PLEVEL whose pay is greater than 15000
- 18) To display NAME and DESIG of those WORKERs, whose PLEVEL is either P001 or P002.

Give the output of the following SQL queries:

- 19) SELECT COUNT (PLEVEL), PLEVEL FROM WORKER GROUP BY PLEVEL;
- 20) SELECT MAX (DOB), MIN (DOJ) FROM WORKER;

Consider the tables given below and answer the questions that follow :

Table : Event

EventId	Event	NumPerformers	CelebrityID
101	Birthday	10	C102
102	PromotionParty	20	C103
103	Engagement	12	C102
104	Wedding	15	C104

Table : Celebrity

CelebrityID	Name	Phone	FeeCharged
C101	FaizKhan	99101956	200000
C102	SanjayKumar	893466448	250000
C103	NeeraKhanKapoor	981166568	300000
C104	ReenaBhatia	65877756	100000

- 21) Name the Primary keys in both the tables and Foreign key in 'Event' table. Can NumPerformers (Number for performers) be set as the Primary key ? Give reason.
- 22) How many rows will be present in the Cartesian join of the above mentioned two tables ?

Write the commands in SQL :

- 23) To display EventId, Event name, Celebrity Id and Names of celebrities for only those events that have more than 10 performers.
- 24) To display Event name, Celebrity Id and Names of celebrities who have "Khan" anywhere in their names.
- 25) To display Event name, Names of celebrities and Fee charged for those celebrities who charge more than 200000.

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