**Technical Skills**

**Time: 45 minutes**

**PHP**

Q1. Given below is a dynamic (can have 'n' number of dimensions and key-value pairs) multidimensional array. Design a PHP program to find & return the highest value from the entire array.

Array(

[1]=>70

[2]=>Array(

[0]=>Array(

[1]=>60

)

[1]=>50

)

)

Q2. Write a PHP program to sort the following Array in increasing order of date:

Array(

[0]=>Array(

[id]=>5

[date]=>01/05/2015

)

[1]=>Array(

[id]=>7

[date]=>05/01/2015

)

[2]=>Array(

[id]=>8

[date]=>12/12/2015

)

)

Q3. Convert the following:

05/10/2015 → 2015-10-05

Q4. What is the best way to return the first repeated element out of an array of integers (PHP program)?

Given: array(4, 5, 23, 0, 100, 5, 7, 33, 44, 100)

Q5. Read the following code:

$category = “Supplier Development”;

$string = “Supplier”;

if(strpos($category,$string)){

echo “Found!”;

}else{

echo “Not Found”;

}

The output of this code would be -

Not Found!

This output is incorrect. Why is this giving incorrect output and how can you fix it to work properly?

**RDBMS**

Q1. What is a Primary Key and a Foreign Key? Can we use a Unique Key as a reference for a Foreign Key? Why or Why not? Can we use more than one attributes to create a Primary Key?

Q2. What is the output of the following queries?

A) Delete from table where id = 1;

B) Truncate from table where id = 1;

Q3. Given are two tables:

Table - tbl\_1

|  |  |  |
| --- | --- | --- |
| id  int (10) | name  varchar  (20) | age  int (10) |
|  |  |  |

Table - tbl\_2

|  |  |  |
| --- | --- | --- |
| id  int (10) | name  varchar  (20) | contact  varchar  (20) |
|  |  |  |

What is the result of applying UNION on the above two tables?

Q4. Consider the below given table:

|  |  |  |  |
| --- | --- | --- | --- |
| id | student | subject | marks |
| 1 | A | Hindi, Maths | 150, 130 |
| 2 | B | Science, Maths | 200, 170 |
| 3 | D | Science | 210 |
| 4 | E | English | 150 |

Is the given structure correct of data? If no, then propose the correct data structure for this.

Q5. Consider a table containing the data of 50,000 students with their total marks. Write a query to find out which students have arrived at the 3rd position (on the basis of their total marks).

Q6. Given are the following tables:

Table - employee

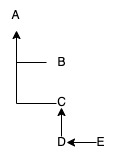
|  |  |  |  |
| --- | --- | --- | --- |
| id | employee | dept\_id | salary |
|  |  |  |  |

|  |  |
| --- | --- |
| id | dept\_name |
|  |  |

Table - department

Write down query to find out the total number of employees in each department and total salary of each department.

Q7. Suggest the most suitable way of storing the following data in DB table (For example: Consider this to be a hierarchy of employees, describing that B reports to A, C reports to A, D & E report to C):



**JS**

Q1. We have a table having 10 rows and 10 Columns. In each row's first column it has a check box if we click on any row's checkbox the color of that particular row color will be red. How will be do that with either JavaScript or Jquery?

Q2. Implement the removeProperty function which takes an object and property name, and does the following:

If the object has a property prop, the function removes the property from the object and returns true; in all other cases it returns false;

Q3. Output for following code

(function(){

var a = b = 42;

})();

console.log(typeof a);

console.log(typeof b);

Q4. Write a node.js program to get files or directories of a directory in JSON format.