

vitalhub

Care Evolved

Internship - Development

- You have 10 questions to answer.
- Submit the answer sheet as a Word or PDF document.
- Duration: 2 Hours

1. Write a jQuery code segment to get the value of selected option.

```
<select id="selectbox" name="selectbox">
  <option value="1">Option 1</option>
  <option value="2">Option 2</option>
  <option value="3">Option 3</option>
  <option value="4">Option 4</option>
</select>
```

2. Write a jQuery/JavaScript code segment to get the selected radio button's value.

```
<input name="age" type="text" id="age"/>

<input name="gender" type="radio" id="male"/>Male
<input name="gender" type="radio" id="female"/>Female
<input name="gender" type="radio" id="dont"/>Don't Ask

<input name="payment1" type="checkbox" id="payment1"/>Payment 1
<input name="payment2" type="checkbox" id="payment2"/>Payment 2
```

3. Explain the differences between Interface and Abstract class.

4. Describe the following OOP concepts.

- a) Encapsulation
- b) Inheritance
- c) Polymorphism
- d) Abstraction

5. What is the output of following Java code?

```
public class Test{
    public static void main(String[] args){
        int[] num = { 1 };
        change(num);
        System.out.println(num[0]);
        change2(num);
        System.out.println(num[0]);
    }
    static void change(int[] num){
        num = new int[1];
        num[0] = 10;
    }
    static void change2(int[] num){
        num[0] = 100;
    }
}
```

6. Write a Java code to display the following output.

```
A
A A
A A A
A A A A
A A A A A
```

7. Describe the usage of following Data Structures.

- a) Stack
- b) Queue

1. Table Name=> *employee*

EmpID	DeptID	JobTitle	Salary
1	100	Manager	200,000
2	100	Assistant Manager	100,000
3	100	Supervisor	75,000
4	200	Manager	250,000
5	200	Clerk	40,000
6	300	Accountant	60,000
7	400	Technician	50,000
8	400	Manager	200,000
9	400	Supervisor	85,000
10	500	Manager	250,000

8. Write a SQL query to get the total salary paid for all the Managers.

9. Write a single SQL statement to change the Job Title into “Other” for the employees that have the salary between 30, 000 and 70, 000.

10. Suppose you need to design a system to store the information of residents living in the cities. Suggest an ER diagram for the above scenario.

(** Please draw or attach a clear photo of ERD with the answer sheet **)

Hence write SQL queries for the following requirements based on your ERD.

- a) Display all the residents who live in Toronto city.
- b) Display the number of residents who live in Colombo city.
- c) Display all the cities with their population (Number of people in the city).
- d) Get the City with the maximum population.
- e) Get the cities with more than 100, 000 residents.