Ans1 :-

```html
<!Doctype html>
<html>
<head>
<script>
function validate(){
let x= document.forms["my form"]["forms"]
    value;
    if (x== " "){
    alert (" Name must be filled out ");
        return false;
    }
}
</script>
</head>
<body>
<h2> Javascript Validation </h2>
<form name="my form" action="/action-page.php"
    on submit ="return validate()" method ="post">

Name : <input type ="text" name = "fname">
    <input type = "submit" value ="submit">

</form>
</body>
</html>
```

Ans 2 :-

```php
<!Doctype html>
<html>
<head>
<title> Registration form using PHP </title>
</head>
<body>
<?php
$nameErr = " ";
$emailErr = " ";
$genderErr = " ";
$name = " ";
$email = " ";
$gender = " ";
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    if (empty ($_POST["name"])) {
        $nameErr = " field name required ";
    } else {
        $name = text_input ($_POST["Name"]);
        if (! preg-match ("/^[a-z A-Z -']*$/", $name)) {
            $nameErr = "only letters and white space allowed";
        }
    }
    if (empty ($_POST["email"])) {
        $emailErr = " Email Required";
    } else {
        $email = text_input ($_POST["email"];
        if (! filter_var ($email, FILTER_VALIDATE_EMAIL)) {
            $emailErr = "invalid email";
        }
    }
```

```php
if (empty ($_POST ["gender"])) {
    $genderErr = "gender required";
} else {
    $gender = test_input ($_POST["gender"]);
}

}

function test_input ($data) {
    $data = trim ($data);
    $data = stripslashes ($data);
    $data = htmlspecialchars ($data);
    return $data;

}

?>
```

```html
<h1> Php registration form </h1>
<form method= "post" action = "<?php echo htmlspecial
                        chars ($_SERVER["PHP_SELF"]; ?>")


<b> Enter Name: </b>
<input type ="text" name = "name" value = "<?php echo
                                        $name; ?>">

    <span> * <?php echo $nameErr; ?></span>

    <br><br>

<b> Enter Email: </b>
<input type ="text" name= "email" value = "<?php echo $email;?>
        ">

<span> * <?php echo $emailErr; ?> </span>
    <br> <br>
```

```php
<b> Select Gender :</b>
<input type="radio" name="gender "<?php if (isset($gender)
          && $gender == "female") echo "checked";?>

value = "female ">female
<input type="radio" name="gender "<?php if (isset($gender)
          && $gender == "male") echo "checked";?> value
                                 = "male ">

     male
<span> + <?php echo $genderErr;?></span>
<br> <br>
<input type = "submit" name=submit " value = "Register ")
</form>
<?php
echo "<h2> Your input :</h2>;
   echo $name
   echo "<br>";
   echo $email;
   echo "<br>";
   echo $gender:
?>
</body>
</html>
```

A Ans 3:- Analysing Dataset on Covid-19 cases

CODE:-

```
# libraries used
library (dplyr)

# setting working directory and importing dataset
    setwd ("D:/genu-Rlab-file")
    my data ← read.csv ("latest-Covid 19-india.Status.csv")
    my data

# Barplot of active cases in different state/UT and
    saving bar plot in png file

png (file = "barplot.png")
barplot (mydata $ Active, xlab = "states/UT ", ylab = "Active
        case ", main = "Active Cases V/s state ", col = "oraange",
    names.org = my data $ State - UTs)

dev. off ()

# statistical --- mean mode etc
    summary (my data)
```

⇒ (Summary of the dataset given)
     of Death ratio

• minimum value is 0.004

- 1st Quarter is 0.9625

- Median is 1.3300

- Mean is 1.3056

- 3rd quarter is 1.6625

- Maximum value is 2.7500

Ans 4:-
After analysing the dataset of covid 19 we have come to the conclusion that the mean active cases and death ratio of covid 19 are 0.3603 and 1.3056.

And the maximum total case in a state is karnataka (66,99,868) and the average of discharged person is 9,52,650

Ans4:

```
# Descriptive Statistics
    summary (my data)
    dim (my data)
    str (my data)
    names (mydata)
```

Inferential statistics

```
1) chi-square test
    model <- chisq.test (my data)
    model

2)# correlation coefficient
    cor (my data $ Active, my data $ Active.ratio)

3) Anova test
    my subdata A <- aov (my data $ Active ratio ~
                          mydata $Active )

    # output Ps(>P) is 0.0014 as this value is
      less than 0.05 then we reject NULL
    Hypothens and accept the alternative hypothesis

4 T-test
    # this gives us the T-score for the dataset
        t.test ( my data , mu =100)
    # Here pvalue is  0.334263 > 0.05
    # So we accept the NULL hypothesis.
```