

①

Name :- Santri

Father's Name :- Kunwar Singh

University Roll No :- 2101259

Course :- MCA

Semester :- 1st

Paper Name :- Scripting Language and R Lab

Paper Code :- PMC 103

Type of paper :- Regular

Ans 1. Source code:-

```

<html>
<head> validate Method </head>
<body>
<form name="myform" action="/action_page.php"
      onsubmit="return validate()" method="post">
    Name : <input type="text" name="fname"><br>
    Password : <input type="password" name="pass"><br>
    Course : <input type="text" name="course"><br>
    <input type="submit" value="Submit">
<script>
function validate()
  let x = document.forms["myform"]["fname"].value;
  let x1 = document.forms["myform"]["pass"].value;
  let x2 = document.forms["myform"]["course"].value;
  if (x == "" && x1 == "" && x2 == "")
    alert("Name, password, course must be filled out");
  else if (x == "" && x1 == "")
    alert("name, password must be filled out");
  }

```

Signature

Santri

②

```
}
else if (x1=="" && x2=="")
{
    alert ("name, course must be filled out");
}

else if (x1==" " && x2=="")
{
    alert ("password, course must be filled out");
}

else if (x2=="")
{
    alert ("name must be filled out");
}

else if (x1=="")
{
    alert ("password must be filled out");
}

else if (x2=="")
{
    alert ("course must be filled out");
}

return false;
}

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

Signature
Saurin

(3)

Ans2. <!DOCTYPE html>

<html lang="en">

<head>

<title> PHP Registration form </title>

</head>

<body>

<?php

\$nameErr = "";

\$emailErr = "";

\$genderErr = "";

\$websiteErr = "";

\$name = "";

\$email = "";

\$gender = " ";

\$comment = " ";

\$website = " ";

if(\$_SERVER["REQUEST_METHOD"] == "POST")

{

if(empty(\$_POST["name"]))

{

\$nameErr = " Name field is required";

}

else {

\$name = test_input(\$_POST["name"]);

if(!preg_match("/^([a-zA-Z-]+)\$/", \$name))

{

\$nameErr = "only letters and white space allowed";

}

if(empty(\$_POST["email"]))

{

\$emailErr = " Email is required";

}

Signature

Suniti

(4)

```

$email = test_input($_POST["email"]);
if (!filter_var($email, FILTER_VALIDATE_EMAIL))
{
    $emailErr = "Invalid email format";
}

if (empty($_POST["website"]))
{
    $website = "";
}
else
{
    $website = test_input($_POST["website"]);
    if (!preg_match("/^(?:http(?:s)?://|www\.)[a-zA-Z0-9+\&@#%+=~_-]+$/i", $website))
    {
        $websiteErr = "invalid URL";
    }
}

if (empty($_POST["comment"]))
{
    $comment = "";
}
else
{
    $comment = test_input($_POST["comment"]);
}

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

function test_input($data)
{
    $data = trim($data);
    $data = stripslashes($data);
}

```

Signature
Saumitri

(5)

```

    $data = htmlspecialchars($data);
    return $data;
}
?>

```

<h1> PHP Registration form </h1>

<form method="post" action="<?php echo htmlspecialchars(\$_SERVER["PHP_SELF"]); ?>">

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

*<?php echo \$nameErr; ?>

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

*<?php echo \$emailErr; ?>

 Enter Website:<input type="text" name="website" value=" <?php echo \$website; ?>">

*<?php echo \$websiteErr; ?>

 Comment:<textarea name="comment"><?php echo \$comment; ?></textarea>

 Select Gender:

<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

<input type="radio" name="gender" <?php if (!isset(\$gender) && \$gender == "other") echo "checked"; ?>

Signature	Kavin
-----------	-------

⑥

value = "other" -> other

```
<span class="error">*<?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 $website;
echo "<br>";
echo $comment;
echo "<br>";
echo $gender;
echo "<br>";
echo "<b>Your data is saved"
?>
</body>
</html>
```

Signature
Sunita

Ans3. # Dplyr library function

```
library(dplyr)
setwd("G:/MCA")
mydata <- read.csv("vehicle.csv")
mydata
```

Descriptive statistics

```
summary(mydata)
dim(mydata)
str(mydata)
names(mydata)
```

select function

```
mysubdata <- select(mydata, cars, average)
mysubdata
```

filter and arrange function

```
mysubdata1 <- filter(mydata, average > 40)
mysubdata1
```

```
mysubdata2 <- arrange(mydata, desc(average))
```

```
mysubdata3 <- arrange(mydata, desc(speed))
```

Top and Bottom 5 average cars

```
head(mysubdata2)
tail(mysubdata2)
```

mutate function (to add a column to dataset)

```
mydata <- mutate(mydata, model = year)
```

Saurin

Different Plot of DataSet

histogram

```
hist(mydata$average, col=c('blue','green','red'),  
xlab="Average", ylab="Cars", break=50)
```

Scattered Plot

```
plot(mydata$speed, col=c('blue','green','red'),  
xlab="Cars", ylab="speed")
```

Barplot

```
barplot(mydata$average, col=c('blue','green','red'),  
xlab="Cars", ylab="average")
```

Boxplot

```
boxplot(mydata$average, col=c('blue','green','red'),  
xlab="Cars", ylab="average")
```

Ans4 # Descriptive Statistics

summary(mydata)
dim(mydata)
str(mydata)
names(mydata)

inferential statistics

1) chi-squared test

model <- chisq.test(mydata)

model

output p-value = 0.334263 > 0.05

Thus 'mydata' is highly correlated and we accept the NULL Hypothesis

2) # correlation coefficient

cor(mydata\$cars, mydata\$average)

output 0.97534 > 0.8

Thus cars & average is strongly correlated to each other.

3) Anova test

mysubdata4 <- aov(mydata\$average ~ mydata\$speed)

mysubdata4

output Pr(>p) is 0.0014 as this value is less than 0.05 then we reject

Ans4

NULL Hypothesis and accept the alternative
Hypothesis

4) T-Test

This gives us the T-score for the dataset

```
t.test(mydata, mu=100 )
```

Here p-value is $0.334263 > 0.05$

So we accept the NULL Hypothesis.