Name - Rahul Bhandari
Roll No - 2101157
Subject Code - PMC-103
Section - D

Ans 1-

```
<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");
}
else if (x=="" || x1!="")
{
alert("name, password must be filled");
}
```

```
else if (x== && x2=="")
 {
  alert("name, course must be filled");
   }
  else if (x1=="" && x2="")
  {
  alert ("Password, Course must be filled");
  }
  else if (x=="")
  {
  alert ("name must be filled");
  }
 else if (x1=="")
 {
 alert ("Password must be filled");
 }
 else if (x2=="")
 {
  alert ("Course must be filled");
 }
 return false;
 }
 </script>
  </form>
    </body>
      </html>
```

Ans 2

```
<!Doctype html>
<head>
<title> Student Registration Form </title>
</head> </body>
<?php
$nameErr = " ";
$ emailErr = " ";
$ genderErr = "";
$ name = "";
$ email = "";
$ gender = "";
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)) {
$nameErr = "Only letters & white space allowed";
}
  }
if (empty($_POST["email"])) {
$emailErr = "Email is required";
}
else {
$email = test_input($_POST["email"]);
```

```
if (!filter_var($email, FILTER_VALIDATE_EMAIL)) {
 $emailErr = "Invalid email format";
 }
 }
if (empty($_POST["gender"])) {
$genderErr = "Gender is required";
} else
{
$gender = test_input($_POST["gender"]);
}
}
function test_input($data) {
$data = trim($data);
$data = stripslashes($data);
$data = htmlspecialchars($data);
return $data;
}
?>
<h1> Student Registration Form </h1>
<form method = "post" action = "<?php echo htmlspecialchars($_SERVER
["PHP_SELF"]; ?> ">
<b> Enter Name: </b> <input type = "text" name = "name" value = "<?
 php echo $name; ?> ">
<span class = "error"> * <?php echo $nameErr; ?> </span>
<br> <br>
```

```
<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

<input type = "radio" name = "gender" <?php if (isset $ gender) &&
$gender == "Other") echo "checked"; ?> 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 $gender;
echo "<br>";
echo "<b> your data is saved"
?>
</body>
</html>
```

Ans 3 -

```
# Dplyr library function

library (dplyr)
Setwd ("D:/MCA")
my <- read.csv ("mostruns.csv")
mydata

# Descriptive Statistics

Summary (mydata)
dim (mydata)
Str (mydata)
Names (mydata)

# Select function

mysubdata <- select (mydata, batsman, average)
mysubdata

# filter & arrange function

mysubdata1 <- filter (mydata, average > 50)
mysubdata1
mysubdata2 <- arrange (mydata, desc (average))
mysubdata3 <- arrange (mydata, desc (Strikerate))

# Top & Bottom 5 average Batsman

head (mysubdata2)
tail (mysubdata2)
```

```
#mutate function (to add column to dataset)
  mydata <- mutate (mydata, Performance = runs-balls)

# Different Plot of Data set

# Histogram
list (mydata$ average, col=c ('blue', 'green', 'red'),
      xlab =" Average", ylab = "Players", break=50)

#Scattered Plot

Plot (mydata $ strikerate, col=c ('blue', 'green', 'red'),
   xlab =" Players", ylab = "strikerate")

# Bar Plot

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

# Box Plot

boxplot (mydata $average, col=c ('Blue', 'green', 'red'),
   Xlab ="Players", Ylab" Average")
```

Ans 4 -

```
#Descriptive Statistics

Summary(mydata)
dim(mydata)
str(mydata)
Names(mydata)

#Inferential Statistics

#chi_squared test
model <- chisq.test(mydata)
model

#Output p-value = 0.4462833 > 0.05
#Thus "mydata" is highly co-related & we accept
  the NULL hypothese's.

# Correlation Coefficient
Cor(mydata$Batsman, mydata$runs)

#Output 0.99324 > 0.8
Thus Batsman & runs is strongly co-related to
  each other.

#
```

Anova test

mysobdata4 <- aov(mydata$runs ~ mydata$Average)
mysobdata4

#Output Pr(>F) is 0.0013 as this value is less than 0.05 then we reject Null hypothesis & accept the alternative hypothesis.

T-Test

This gives us the T-score for the data set t.test (mydata, mu=100)

Here p-value is 0.446283 >0.05 so we accept the Null Hypothesis.