Name : AKHIL GUSAIN Course : MCA STUDENT ID : 21711276

Q1 Source code :

```
<html>
<Head> validate method </head>
<body>
<form name = "myform" action = "/action-Page-php". on submit =
 "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");
}
else if (x == "" || x2 == "")
{  alert("name, course must be filled out");
}
```

```
else if (x1 == "" && x2 == "")
{
 alert ("Password, Course must be filled out");
}
else if (x == "")
{
 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>
```

$ Name : AKHIL GUSAIN  Student Id : 21711276  Course : MCA

Q2

```
<!DOCType HTML>
<HTML>
</Head>
<Body>
<form>
        <H1> Registration form </H1>

<Label> First Name </Label><br>
<Input type="text" name="name">
<Label> Father Name </Label><br>
<input type="text" name = "fname">
<Input type="text"
<Label> Course </Label><br>
<input type = "text" name = "course">
<Label> Ph.Number </Label>
<input type = "text" name = "NO">
<Label> Email </Label>
<Input type = "mail" name = "mail">
<Input type = "submit" name = Submit">
</form>

<?PHP
  $con = mysqli_connect ('Localhost', 'root', '');
  mysqli_select_db ($con, 'STUDENT');
  if (isset ($_REQUEST ['Submit']))
  {
  $N = $_REQUEST ['name'];
  $P = $_REQUEST ['fname'];
  $C = $_REQUEST ['course'];
  $D = $_REQUEST ['NO'];
  $E = $_REQUEST ['mail'];
```

```
$q = "Insert into student values('$N', '$P', '$C', '$D', '$E')";
$x = mysqli_query($con, $q);
echo "Data submitted";
echo "Name = $N";
echo "f.Name = $P";
echo "Course = $C";
echo "PH.No = $D";
echo "Mail Id = $E";
}
?>
</Body>
</HTML>
```

Q3

```
#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
mysubdata <- filter(mydata, average>40)
mysubdata.
mysubdata2 <- arrange(mydata, desc(average))
mysubdata3 <- arrange(mydata, desc(speed))
#Top & Bottom 5 average cars
head(mysubdata2)
tail(mysubdata2)
# mutate function (to add a column to dataset
mydata <- mutate(mydata, model = year)
#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")
```

Q4

Descriptive statistics :

It describes the important characteristics of the data using the measure the central tendency like mean/median/mode and the measure of dispersion like range, standard deviation, variance etc. Data can be summarized & represented in an accurate way using charts, tabels & graphs.

for ex => we have masks of 1000 students and we may be interested in the overall performance of those students and the distribution as well as the spread of masks. Descriptive statistics provide us the tools to define our data in a most understandable and appropriate way.

inferential statistics :

It is about using data from sample & then making inferences about the large population from which the sample is drawn. the goal of the inferential statistics is to draw conclusions from a sample and generalize them to the population It determines the probability of the characteristics of the sample using probability theory. The most common methodologies used are hypothesis tests, Analysis of variance etc.