# SAROJINI NAIDU VANITA MAHA VIDYALAYA 

## SSR - 2.3.1

## Student Centric Methods - Problem Solving

Students learn to identify, analyse and solve problems by taking up live projects, surveys, lab tests etc. Students are encouraged to use free online databases (like www.screener.in, www.moneycontrol.com etc.,) in their projects. Students are trained on software namely, accounting software 'Tally' to prepare and analyse financial statements. Programming software namely, JAVA, Python etc., are used for specific outcomes. Web programming is used by students to create websites with specific purposes. Faculty guide students at UG and PG level in using MS-Excel (along with data-analysis add in) for data tabulation and analysis in their classwork and projects. Case studies and Business games help students to understand, analyse and solve real life challenges. The inquiry based learning method is adopted by some faculty. In this method students are encouraged to identify some problem or issues in the real world and conduct a survey or analyse to understand and present suggestions and recommendations. These methods help in imbibing problem solving skills in students.

Table: List of Student Centric Activities - Problem Solving

| S. No. | Tools Used | Pg. No. |
| :---: | :--- | :---: |
| 1 | Programming tools like C, C++, JAVA, Python etc., | $2-9$ |
| 2 | Psychometric test | $10-10$ |
| 3 | Conducting Surveys and Analysis by inquiry method | $11-73$ |
| 3 | Using analytical tools like MS-Excel etc. for Class work and <br> Projects | $74-84$ |
| 4 | Business Games | $85-88$ |
| 5 | Case Studies | $89-104$ |
| 6 | Projects based on Lab Experiments | $105-111$ |
| 7 | Two Day Intercollegiate Program on "Snakes our Friends or <br> Foes" | $112-119$ |

## Programming tools like C, C++, JAVA, Python etc.,

## Students created a model calculator application using JAVA programming language.



Computer science labs are highly equipped with all the essential ICT tools and latest software for the students to create and practice various exercises, programs and applications using different programming and scripting languages.


## Sample HTML program

## 1.(b) Write a HTML page for Example Café using text formatting tags.

## Program:

<html>
<head>
<title>Cafe</title>
</head>
<body bgcolor="pink">
<h1><font color="blue">Royal Cafe</font></h1>
<h2>Near Somajiguda</h2>
<h3>Begumpet</h3>
<h4>Hyderabad</h4>
<h5>Telangana</h5>
<h6>Contact No:999990000</h6>
<p><font color="red">Royal Cafe Branches:</font><br>Telangana,<br>Mumbai.</p>
<pre>
Please Visit our Site:<font color="green"><u>royalcafe@gmail.com</u></font>
</pre>
</body>
</html>
OUTPUT:

## STEPS:

1.INPUT-NOTEPAD EDITOR
2.OUTPUT-BROWSER-MS-IE


## The following Programs Illustrates the use of Templates in C++

12. Type the following table and find out the total marks and average obtained by each students.

| Roll NO | Names | Conovics | Banking | Marketing |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Ajar | 50 | 90 | 80 |
| 2 | Vinay | 40 | 80 | 60 |
| 3 | Bhoomi | 38 | 70 | 75 |
| 4 | Vane | 80 | 60 | 68 |
| 5 | Vaishu | 84 | 57 | 84 |

Procedure
Step 1: Start Ms - Excel in the following way! start $\rightarrow$ All programs $\rightarrow M S-$ office $\rightarrow M S$ - Excel MS - Excel application wilt be opened.
Step 2: To open a new work book, lick on office button lick on new and select the blank work book and press create button.
Step 3: Type the data given in the question.
step 4 : place the cursor in cell $F_{1}$ and type total go to cell 41 Type Average.
Step 5: To calculate the total, place the cursor in cell $f_{2}$ and typithe following formica $=\operatorname{sum}\left(C_{2}: c_{2}\right)$
step 6 : To calcite the average place the cursor in well $G_{2}$ and type the following formula

$$
=F_{2} / 3
$$

 HOME INSERT PAGELAYOUT FORMULAS DATE REVEWI


| Roll. No | Names | Coromic Bonting rarkaing | Tolal | Averay |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 1 | A'ay | 50 | 90 | 80 | 220 | 73.3 |
| 2 | Vinay | 40 | 80 | 60 | 180 | 6.0 |
| 3 | Arnay | 38 | 70 | 75 | 183 | 6.1 |
| 4 | Prathista | 80 | 60 | 68 | 208 | 69.3 |
| 5 | Bhoomi | 84 | 57 | 84 | 225 | 75 |

Write a C++ program to calculate an area of rectangle using encapsulation. \#include<iostream.h> using namespace std;

```
class Rectangle{public:
int lengh;
int breadth;
Rectangle(int len,ini brth):length(len).breadth(brth)
{
}
int getArea()
{
    return lengh*bradth;
    }
    };
    main()
    {
    Rectangle rect(8.6);
    cout<<"Area="<<rect.getArea();
    return 0;
    }
```


## Output

Area $=48$

## //Class Templates

\#include <iostream>
using namespace std;
template<class T1, class T2>
class Sample

TI a;
T2 b;
public:
void getdata()
cout<<"Enteraandb:"; cin>>a>>b;
void display()
cout<<"Displaying values"<<endl;
cout<<"a="<<a<<endl;
cout<<"b="<<b<<endl;
int main()
Sample<int,int> st; // Parameterized Types
Sample<int,string> s2;
Sample<int,float> s3;
cout <<"ln In Enter Two Integer data"<<endl;
s1.getdata():
stdisplay():

Programming in $\mathrm{C}++(\mathrm{C}++$ Lab $]$
B.SC-ComputerScience
cout << "lInIn Enter an Integer and String data"<<endl;
s2.getdata();
s2. display();
scout <<"InlnEnter an Integer and Float data"<<endl;
s3.getdata();
s3. display();
return 0 ;
i/o:

Enter Two Integer data
nter.a and $\mathrm{b}:: 5 \cdot$. $\mathrm{\sigma}^{2}$.
isplayi.ng.values
$a=5$
$-6$
Elter au Integer and String data
Enter a and b: -100 Ravi
Displaying values
$a=100$
$b=$ Ravin
Enter an-Integer and Float data
inter az and $b: 10 \quad 10.0$
Displaying values
$a=10^{\circ}$
$b=10$
Process returned $00 .(0 x 0)$ execution time : 19.060 si Press any key to continue

## Psychometric test was conducted for MBA $4^{\text {th }}$ Semester students

MBA Students of Batch: 2021-23 have taken free online psychometric tests on 20.05 .23 to measure their cognitive ability, personality and work behavior that indicates the potential to excel in a specific position or career at the corporate level. The aptitude tests were based on numerical, verbal reasoning, and interpersonal skills.



## DEPARTMENT OF NUTRITION AND DIETETICS BODY MASS ANALYSIS

The Department of Nutrition and dietetics at Post Graduation level identified one of the major issue of obesity/sedentary lifestyle in general among the populace. Hence, an attempt is made by the Department to highlight the need to conduct the body mass analysis among students. All students in the class are encouraged to conduct body mass analysis on self to understand and identify any underlying issues that can be easily corrected by diet and lifestyle modifications. Some of these issues if left uncorrected may lead to lifestyle diseases in future. Students are encouraged to implement the recommendations they make on themselves after Body mass analysis.

Body Mass Analysis is performed using Analyser (Bio impendence equipment) to create an awareness towards the components of human body like percent fat, muscle, Body Mass Index (BMI), Resting Metabolic Rate and hydration levels among the individual on whom the analysis is performed. The components help the individual adopt corrective measures in terms of diet \& nutrients included to lead a disease free life.

The following is the specimen report on Body Composition Analysis performed by students.

Assessment of Body Composition using
B10 Impendance analyser
Introduction :-
Body composition Analysis is a way to measure the different components of body like muscle, fat and water. It's a way to get a deeper understanding of overall health and fitness level. The analysis is usually done using technique -es like DEXA, Bioelectrical Impedence Analyser or skin fold measurements. These methods helps to determine the body fat percentage. A certain amount of body fat is important to all individuals to protect organs, regulates body harmones and used as fuel for energy.
$B I A-B 1 O$ Impedence Analyser determines the body compositi -on by running small electrical currents through the body. As the electrical conductivity is different between various bodily tissues (eg muscle, fat, bone etc) due to their Variation in water content, the small electrical current passes through the tissues at different speeds. Armed with that information, the machine is able to calculate the impedance (i.e the resistance of electrical current (2) of the current and then estimate
body composition - hence the name "bioelectrical impedance"
The body is composed of water, protein, Minerals \& fat. Body composition analysis gives accurate measure or track changes in the muscle mass, fat mass, visceral fat percentage and body fat percentage. The following are 4 body fat measurement techniques that are olen accessible to fitness professionals: hydrostatic weighing, bioelectrical impedance and skin folds.

Hydrostatic weighing:- also known as underwater weighing or hydrodensitometry is one of the most accurate ways to measure body fat. This is done by submerging person in a tank of water and being weighted underwater The measur -ements can then be broken down to determine fat and fat free mass including lean tissue and musclemass.

Skinfold measurements:-
Done by pinching the skin with calipers in seven different areas on the body, can provide a quick os relatively accurate estimate of body fat that can be compared to others of similar age and gender.

Bioelectrical impedance Analysis (BIA):- This technique uses body fat and lean muscle mass as the basis for measurement by way of either a handheld device
or BIA scale, small electric currents are sent through the body and because water, fat and lean tissue mass interact with the currents differently the devices can accurately assess the distribution of mass.

Body composition scales:- A body composition scale uses a weak electrical current to measure body fat and fat -free mass. These scales are often mads of glass \& steel to help the electricity conduct properly. Body composition ana scales are more expensive and can be more reliable. It determines body fat percentage, weight and body water percentage.

About Indicators :-
Intrepreting Body Fat Percentage -

| GENDER | -LOW | O(NORMAL) | $+($ HIGH | $++($ VErY HIGH) |
| :--- | :---: | :---: | :---: | :---: |
| Female | $50-199$ | $200-299$ | $300-349$ | $35.0-50.0$ |
| Male | $50-99$ | $100-199$ | $200-249$ | $250-50.0$ |

Source - LOHmAN(1986) and
Nagamine (1972).

Intrepreting Visceral Fat level Source-

| Visceral Fat <br> level | level classification |
| :---: | :---: |
| $1-9$ | 0 (Normal) |
| $10-14$ | + (High) |
| $15-30$ | ++ (very high) |

Source - oman heath care.
BMI classification (WHO):- 1995, wHO

| Weight status | BI $\left(\mathrm{kg} / \mathrm{m}^{2}\right)$ |
| :--- | :--- |
| under weight | $<18.5$ |
| Normal | $18.5-24.9$ |
| Overweight | $25.0-29.9$ |
| Obese (grade I) | $30.0-34.9$ |
| Obese (grade II) | $35.0-39.9$ |
| obese (grade III) | $\geq 40$ |

Inlreprieting skeletal muscle percentage :-

| Gender | - (low) | 0 (Normal) | + (High) | ++ (Very high) |
| :--- | :---: | :---: | :---: | :---: |
| Female | $50-25.8$ | $25.9-27.9$ | $28-29$ | $29.1-60.0$ |
| Male | $50-32.8$ | $32.9-35.7$ | $38-37.3$ | $37.4-60.0$ |

Source:- WH10, 1995 Omron Healthcare

Omron:- Omron is a company that manufacturers blood pressure monitors and other personal medical devices. Ammon monitors use oscillometric technology to measure blood vibration as it moves through the arteries with $E C G$ recording.
Omron HBF 214 -


This device is designed to provide you with comprehensive body composition analysis: It uses BIA technology to measure the electrical impedance of body tissues. By analysing the resistance of electrical current, it can estimate the body fat percent -age, muscle mass, visceral fat level, resting metabolism \& more. This is fully automatic digital machine which has intelliscense technology for accurate measurements. The omron monitors are FDA approved 4 sensor


Accuracy technology. It is a user friendly interface and compact design with high grade tempered glass panel for easy use and also gives complete body composition analysis The omron HBF-214 Digital full body composition monitor has been designed to accurately indicate the weight gain br loss over. some time. The device is powdered by a $Ч A A A$ battery which has a longer lifespan than others that could easily last for a year and overall it can also easily measures mass from 2 to 150 kgs .

By analysing the resistance of electric current, it can estimate the following parameters like:-

1) Body weight:- measures the mass or heaviness of a Persons body. It is typically measured in units such as. Kilograms or pounds.
ii) Body fat percentage: - The amount of fat lissue in the body. Body fat percentage is the proportion of bodyweight that is made up of fat. It is an essential component of overall body composition but excessive body fat con be detrim -ental to health.
ii) Visceral fat percentage:- The fat that surrounds the internal organs such as liver, pancreas of intestines. unlike subcutaneous fat, visceral fat is metabolically. active of can risk of increase, Various health conditions.
iv) skeletal muscle \%:- skeletal muscle plays a crucial role in supporting body structure, movement \& overall metabolism. maintaining : increasing skeletal muscle mass can have numerous benefits including strength, metabolism \& performance.
v) Body Age:- estimates the age of body based on factors like physical fitness, lifestyle habits s overall health. It is often compared to chronological age.
vi) Resting metabolism:- also known as Basal metabolic
rate (BMR) refers to the amount of energy where body needs to perform basic functions while at rest.
Vii) BMI :- It is a measure of body fate based on persons weight \& height which indicates underweight, normalweight, over or obese.
Viii) Hydration level:- The proportion of bodyweight that is made up of water monitoring water \% can provide hydration status of our body.

Methodology:- The body composition analysis was performed. The participants were included are postgraduate students of Sarojini Nardu vanita college, Nampally of age group 23 years. By using omron leg-leg Bio electrical impedance analysis machine, the individual readings are noted. The data were interperded using the indicator given by ammon.

Interpretation:-
The body weight of an individual is found to be 341.6 kgs . The body fat was observed as $21.5 \%$ which is falling under low category. The visceral fat is $1 \%$ which falls in the normal category. The muscle mass is found to be $30.6 \%$ which
falls under very high percentage. The body was wage was found to be 18. The Resting metabolism of individual was found to be 1018 kcal which indicates the normal where no. of calories burn at rest the BMI of individual is 172 which falls under under weight cateogry [wHO]. The hydration levels were $47.9 \%$ which is of mild dehydration category.

| weight -41.6 kgs <br> Body Fat - $21.5 \%$ <br> Visceral Fat - $1 \%$ <br> Muscle Mass - $30.6 \%$ <br> Body age - 18 years <br> RM - $1018 . \mathrm{kcal}$ <br> MI - 17.2 <br> Hydration level $-47.9 \%$ |
| :--- |



Corrective measures:-
The Body composition analysis of the individual was found to be in normal range in some categories. The corrective measures is to gain weight to get normal BMI and increase body fat percentage and also needed to follow $1.5-2.00$ litres of water in a day to maintain hydration levels in body.

Reference:-

* https: mdpi.com
* beeps: ncbi.nlm.nih.gor
* hitps: llwww omron brand.com.



## DEPARTMENT OF BOTANY

## Estimation of Noise Pollution at specific areas of Hyderabad with the help of Noise Level Meter

The Department of Botany at Post Graduation level under inquiry method of problem solving attempted to generate interest among students to understand the pollution levels in the city of Hyderabad where the institution is located. All students in the class are encouraged to estimate noise pollution at various areas in Hyderabad using noise level meter. With this experiment students could understand the level of sound pollution at specific areas after calculating and comparing sound levels at specific areas such as Malakpet(97.3db), Musarambagh(80.3db), Nagole(93.2db), L.B Nagar(92.7db), Afzalgunj (88.2db) and Nampally Railway Station(127.3). Students were also encouraged to identify and list the measure to control the sound pollution.

The following is the specimen report on Noise pollution estimation performed by students.


Defination:-
Noise is an unwanted sound Energy and is also considered as a pollutant when it Exceeds certain limits, noise has a short residence and decay lime and hence does not remain in the Environment for long period like air or water pollutant.
Nature of a sound:- sound pressure is also mentioned in newtons per square $\left[\mathrm{N} / \mathrm{m}^{2}\right]$
Sound is often described in terms of loudness but this Cannot be measured like fou sound frequency, sound pressure, and sound intensity.
Loudness may be described as a listiers auditory impression Which is not synonymous with sound presence
loudness is Expressed in a relative unit, called 'sone' one Sone equals to the loudness of 40 dB sound pressure at 1000 cycles per second.

- Normally hearing is most acute in the frequency range $2000-5500 \$ 12$. perfect hearing lies in the range of about 16 to $20,000 \mathrm{~Hz}$ sound pressure level


Scale shoving Common sound pressure level.

derbwowhy ikaportiont fertors.
4) the twayuent| n| nound socues


1A) The sime rf Exposever if socerd soaves
(v) Shacwmiसnorse by Elourd wouls -
 C vhonsit cy number to as colled a hel tore fersh of a hat

Thas a dest-bel As Cenvitaud ean torth stend

- 4 thatout discomfort is about 80 d B
fatemuthte herns may pach mere than qo decibels and a Yor aweplane at o distance of 100 feet may have an entensity ni) abeat lupe decibels.
Neasuremtent of cound !
- rund Enerqy travels in waves and is measured in teide range of measurement techniques and sound level druaplicins have been lued.
$\rightarrow$ Comind level meter
A Sound level metor can measure sound pressure levels in the range from $20 d^{s}(A) \cdot 140 d s(A)$ at frequerneier between 35 Kl and 20 kHz with an addifional stifable Nicroptane Sound pressues tan it meatured hy a sound level mekr an instrument Conststing of a firit clars micrephone couptad do a good amplifer and terminating in a logarithanic Indicator catibrated in decibels.
- Control of Noise Pollution:-

1. Turn off appliances at tome and officer.
2. Shut the door when using noisy machines
3. use Ear plugs
4. Lower the volume when listening to song, radios and
5. Stay away from noisy areas like industries, air pants port:
6. Follow the tinite of Noise levels.

Go green by planting trees because plants are good noise absorbents plants can reduce sound by $5-10$ decibels around Theme.
$\Rightarrow$ Sound recorded in some places are given below :-

| ssa | Areas | sound <br> recorded (dB |
| :---: | :--- | :--- |
| 1 | LB nagar | 92.7 dB |
| 2. | Afzal Gunj | 88.2 dB |
| 3. | Malakept | 97.3 dB |
| 4. | Musharambagh | 80.3 dB |
| 5 | Nagole | 93.2 dB |

## Estimation of Total Hardness of water in Hyderabad

The Department of Botany at Post Graduation level under problem solving methodology attempted to generate interest among students to understand the difference in hardness of water in tap water and pond water. Levels of calcium in the water were also estimated by the students. Various reagents such as Erichrome black tea indicator, Murexide indicator etc., were used to check the quality of water to understand whether it is fit for drinking or not. All students in the class are encouraged to estimate the total hardness of water. The difference in the hardness of water between tap water (420mg per litre), rain water/pond water ( 80 mg per litre), drinking water ( 160 mg per water). With this experiment students could understand whether the quality of water they are testing was suitable to drink or not.

The following is the specimen report on estimation of total hardness of water.

M. Bhavani $1175-21-502-023$ mAnse- IT w
Estimation of Total Hardness of Water
$\Rightarrow$ Aim:- 70 Estimate the hardness of given sample of water
$\Rightarrow$ Principle:- Hardness is Generally caused by calcium and Magnesium ions in the later. cations of some other metals like zine, Magnesium are capable to precipitate the soap thus contributing to the hardness. The concentration of these cons is very low in natural water calcium it Magnesium ion forms a complex of wine red colour has got a stronger affinity towards calcium and Magnesium cons and therefore by addition of EDTA [Ethylene diamine Tetraacetic acid], the former complex is broken docon and a new complex of blue colour is formed
$\Rightarrow$ Materials:- Laboratory glass ware.
$\Rightarrow$ Reagents:-

1. Ammonium buffer solution - Dissolve 13.5 gms of $\mathrm{NH} C l$ in 14 ml of $\mathrm{NH} \mathrm{HOH}_{4}$ a add distilled water to make uplo the volume of
2. EDTA Solution - Dissolve 3.7 gms of disodicem salt of EDTA in distilled water to prepare a litre of solution.
3. Erichrome Black ' $T$ ' Indicator - Dissolve 0.5 gms of EDTA Erichrome black ' 7 ' indicator in 100 ml of $80 \%$ of Ethyl alcohol.
4. Sodium sulphide solution - Dissolve 5 gms of $\mathrm{Na}_{2} \mathrm{~S} \cdot 9 \mathrm{H}_{2} \mathrm{O}$ in 100 ml of distilled water and kept in the tight bottle tu avoid oxidation.
$\Rightarrow$ Procedure:-
Take 50 ml of sample in a conical flask
5. Add 1 ml of buffer solution and 1 ml of $\mathrm{Na}_{2} \mathrm{~s}$ solution
6. Add $4-5$ drops of Erichrome black ' $T$ ' indicator $\left(0^{r}\right) 100$ mittig EBT powder and shake the Solution, it turns to wine red
7. Titrate the contents against EDTA solution until the wire Colour of the solution turns to blue colour.
$\Rightarrow$ Inference:- The total hardness is generally called due to the presence of Excess catceizm and magnetitum cons is the form of carbonates, chlorides and sulphates and they $p$ impure permerant havdncts to water.
$\Rightarrow$ Map roster contains 240 mg lit of hardness
-, The sample of water shows the high concentration of Ca d mg ions which in long term use causes joint pains, britt ling of bones and teeth.

- Total Hardness of coaster in Tapwater is $240 \mathrm{mg} / \mathrm{ur}$
- Total Hardness of cotter in pondwater is $60 \mathrm{mg} /$ Lit
Hardness of water in Tapwater:

Hardness of water in Pond water :SNO Initial Final Vol of EDTA

| 1 | 0 | 3.5 m | 3.5 ml |
| :---: | :---: | :---: | :---: |
| 2 | 0 | 3 ml | 3 ml |
| 3 | 0 | 3 ml | 3 ml |

Hardness of water $m p /$ ut $=\frac{m l \text { of EDTA used }}{m l \text { of water sample }} \times 10$

$$
=\frac{3}{50} \times 1000
$$

E60mglit

$$
\begin{aligned}
& \begin{array}{cccc}
\text { oNO } & \text { Initial } & \text { Final } & \text { Vol of } \in D T A \\
1 & 0 & 12 \mathrm{ml} & 12 \mathrm{ml} \\
2 & 0 & 14 \mathrm{~m} 1 & 14 \mathrm{~m} \\
3 & 0 & 14 \mathrm{ml} & 14 \mathrm{~m} 1 .
\end{array} \\
& \text { Total hardness of water mg l } \\
& =\frac{m l \text { of EDit used }}{m l \text { of water somali }} \\
& \begin{array}{l}
=\frac{12}{50} \times 100 \\
=240 \mathrm{mg} / 4 \mathrm{t}
\end{array}
\end{aligned}
$$

$\Rightarrow$ Result :-

1. Hardness of calcium in given pond water is $80 \mathrm{mg} /$ dir
2. Hardness of calcium in given Tap water is $480 \mathrm{mg} / \mathrm{lit}$
$\Rightarrow$ tlardness of calcium in Tap water

| SNO | Intial | Final | Vol of EDTA |
| :---: | :---: | :---: | :---: |
| 1 | 0 | 24 ml | 24 ml |
| 2 | 0 | 24 ml | 24 ml |
| 3 | 0 | 24 ml | 24 ml |

$$
\begin{aligned}
\text { Hardness of calcium in tap water } & =\frac{m 1 \text { of ESTA }}{m 1} \text { of Sample } \times 1000 \\
& =\frac{24}{50} \times 1000 \\
& =0.48 \times 1000 \\
& =480 \mathrm{mg} / \mathrm{lit}
\end{aligned}
$$

$\Rightarrow$ Hardness of Calcium in Pond water.

| SNO | Iutial | Final | Vol of EDTA |
| :---: | :---: | :---: | :---: |
| 1 | 0 | 4 ml | 4 m |
| 2 | 0 | 4 ml | 3.5 ml |
| 3 | 0 | $4 m l$ | 4 ml |

$$
\begin{aligned}
\text { flordness of calcium in Pond water } & =\frac{m / \text { of EDTA }}{m 1 \text { of sample }} \times 1000 \\
& =\frac{4}{50} \times 1000 \\
& =0.08 \times 1000 \\
& =80 \mathrm{mg} / \mathrm{it}
\end{aligned}
$$

1. Sulla Rome
Head
.

Estimntion of Hardress of Wates:


Pond hater
Total thardness $=$ ml of EDTA


|  | Tritial | Final | 5 |
| :--- | :---: | :---: | :---: | :---: |
| 1 | 0 | 5 | 5 |
| 2 | 0 | 4 | 4 |
| 3 | 0 | 4 | 4 |

Drinking water:-

| SND | Envele redices |  | volume of EDTA |
| :---: | :---: | :---: | :---: |
| 1 | 0 | 8 | 8 |

$$
\begin{aligned}
\text { Ttal tardoses of Drinking water } & =\frac{m l}{m l} \text { \& EDTA Sample }
\end{aligned}
$$

## Estimation of Total Hardness of calcium in the water

$\Rightarrow$ Aim:- To Estimate the total hardness of calcium $\left(\mathrm{ca}^{\text {tr }}\right)$ in the given water sample.
$\Rightarrow$ principle:- Many complex forming ions or molecules leads to a step wise formation of complexes, each complex is charateright by its owen stability constant. This property of step wise formation of complex can be used in titrimetry and one can be acre to estimate the concentration of the respective ions usually EDTA and Amino folic polycarbosaxilic and is a good Complexing agent is used for such Estimation. In this
titration metalopronic indicators [solo chrome dark blue for calcium ions is used ] . The reactions are calcium tons, Buffer solution $p H=10$. Then free ions of calcium 2 electrons rise to the Calcium ions
Indicator dye [solochrome] $+2 e \longrightarrow$ Indicator metal complex
Indicator metal complex [red coloured complex]
EDTA Solution $\longrightarrow$ metal EDTA complex + indicator.
$\Rightarrow$ Materials:- Burette, Pipette, test tubes and conical flask.
$\Rightarrow$ Reagents :-
2. Murexide indicator - purpurate and mix it with 40 gms of called as Ammonium purpura te in icator is not stored as it gets potassium Sulphate and this indicator is not stored as $1 t$ oxidised
EDTA Solution - Dissolve 3.7 gms of disodium
distilled water to prepare a litre of solution
$\Rightarrow$ Procedure :-

1. Take 50 ml of sample in a conical flask and add 1 ml of buff Solution and add $4-5$ drops of murexide indicator.
2. Titrate the solution against the EDTA solution until the pink colour of solution turns into purple violet.
$\Rightarrow$ Result:-
3. Hardness of calcium in given Pond water is $80 \mathrm{mg} / \mathrm{dit}$
4. Hardness of calcium in given Tap water is $480 \mathrm{ng} / \mathrm{lif}$
$\Rightarrow$ Hardness of calcium in Tap water

| SNO | Intial | Final | Vol of EDTA |
| :---: | :---: | :---: | :---: |
| 1 | 0 | 24 ml | 24 ml |
| 2 | 0 | 24 ml | 24 ml |
| 3 | 0 | 24 ml | 24 ml |

$$
\begin{aligned}
\text { Hardness of calcium in tap water } & =\frac{m l}{m 1} \text { of ESTA } \begin{aligned}
\text { sample }
\end{aligned} 1000 \\
& =\frac{24}{50} \times 1000 \\
& =0.48 \times 1000 \\
& =480 \mathrm{mg} / \mathrm{lit}
\end{aligned}
$$

$\Rightarrow$ Hardness of calcium in Pond water.

| SNO | Iutial | Final | Vol of EDTA |
| :---: | :---: | :---: | :---: |
| 1 | 0 | 4 ml | 4 m |
| 2 | 0 | 4 ml | 3.5 m |
| 3 | 0 | 4 ml | 4 ml |

flordness of calcium in Pond water $=\frac{m 1 \text { of EDTA }}{m l} \times 1000$

$$
\begin{aligned}
& =\frac{u}{50} \times 1000 \\
& =0.08 \times 1000 \\
& =80 \mathrm{mg} / \mathrm{ut}
\end{aligned}
$$

1. Sudlua Rome

Department of Political Science has conducted a Post-Election Survey at Munugode Constituency on $19^{\text {th }}$ November, 2022.

To
the principal
ENUGU

Reseeded Madam,

The Department of Social scie is conducting a sample survey of Electoral - Behaviour, of 400 volers in a chottuppal, with the participali: of 70 students of B.AI,B.AII, Bo on $14111 / 2022$ i.e satranday.

Hence we request the concerned Heads of Departmeuls $10^{\circ}$ extend hair co-operation. Thanking you.

Departmenté.

1) English. Guteriniorros
2) Languages:

Telega Jyotho urdu - At
Donau Jor under - the No di no nt
semstarit Nom

## Sarolini Naidu Vanitha Maha Vidyalaya

(Sponsored and Managed Jointly by Osmanla Graduates Association and Exhibition Society)

## Nampally, Hyderabad. 500001

Department of Social Sciences

## Post Election Survey at Munugode Constituency November-2022

1. Namefos: Kate Ditch Rucd.C
2. Age/bowny: 17
3. Gender:
(a) Male
(b) Female

4. Locality/ इขrowu: Choutuppal
5. Education/ of or: Intermediate persuing Degree
6. To which Party you have voted?
(a) TRS
(b) BJP
(c) Congress
(d) Any other Party

(a) Bee

7. Do you think that this By-election reflects the mood of the voters for the forth coming Assembly elections:
(b) No If "Yes", give the reasons.
 -అనును, అసిใుకులనిపిస్తి, కారణాపిర్కా,నండ:
8. What is the main reason for the victory of TRS?
(a) Party
(b) Candidate
(c) Manifesto
(d) Money
(b) other reason


9. Do you really think that the TRS candidate is a good candidate?
(a) Yes
(b) No Give the reason.

a. అసును
b. కాడుఅయిత, కారణంప్క్నూండ:

(A) tex ir inf defeat

a Bath gerber
1) Why velars ara divine importance only to Money?

They a cue not much elicited
1.. The margin of victory for TRS was very less. So, are there any chances that Kornat Redidy F Heddy winning in the forth coming Assembly elections?


a. end)
b. sec
13. What is the main cause of BJP's defeat in this election?

Don't know the BTP
14. Do you think presence of Congress led to division of votes and loss of BJP?
 arisen
$+10$
15. Why Congress has lost the deposit?

the congress leader has no political support

16. What are the main benefits that you are expecting from TRS after this victory?
17. టైరో โి Than.
*nothing

Students Information
Names: Naziya Begum
Class/Group: $B A(H \mathrm{pp})$

Department of Political Science has conducted a Post Election Survey at Munugode Constituency on 19 th November, 2022.


## Post-Election Survey Report of Munugode Constituency

Department of Political Science has conducted a post-election survey at Munugode Constituency on 19th November, 2022. All the staff members from the Department of Political Science along with 70 students from B.A I, II \& III have participated in this survey. We have chosen Choutuppal town for the survey as it is near to Hyderabad. Students have collected the primary data by visiting each house of the town. Each student interviewed about 4-5 voters based on a thoroughly prepared questionnaire. A total of 400 voters were interviewed. The questionnaire contained several questions which enabled us to understand the voter's political awareness and their general knowledge. The surveyors (students) reported that most of the women, to whom they have contacted, were literate, but with no political knowledge. Some of them even asked the money to answer the questionnaire. All the four hundred samples were later categorized into different groups based on the age, gender, and literacy. The data based on the survey stated that $65 \%$ voters were youngsters (less than 35 years) and $34 \%$
voters were middle aged and elders. According to the collected data $52 \%$ were male and $44 \%$ were female voters. Out of them $60 \%$ were literates.

According to survey result $58 \%$ of voted for TRS, $40 \%$ voted for BJP and $2 \%$ voted Others. $66 \%$ of voters said that this by-election is going reflect the mood of the voters for the forthcoming State Elections of Telangana and, also the following General Elections.

By observing the views of the voters $80 \%$ of the population have said that distribution of the money and liquor by TRS was the main reason behind the victory of TRS, $5 \%$ of the population said it is the manifesto of the party which led to the victory and $2 \%$ of the population have given the vote to TRS by seeing the candidate.
$70 \%$ of the voters believed that TRS has taken the support of Communist Party, only because of fear of defeat and $25 \%$ have given other reasons behind the support of Communist Party to TRS. Almost, 10 MLAs from TRS party have participated in the campaigning in Munugode Constituency only because of the fear of the defeat in the byelections. The major reason behind the defeat of BJP in the by-elections was less money distribution among the voters compared to TRS. This has affected the mind-set of the local people. Another important finding in that is most of the voters are happy with the welfare schemes including monthly pensions, Dalit bandu and farmers are impressed by 24 hours free electricity.

Most of the voters have accepted the money because it is important for livelihood and they know that after election, no party or representative will turn back for their town development.

65\% of voters have said that Komat Reddy Rajgopal Reddy has chance to win the forthcoming election because of the fame among the youth in the Constituency. Congress lost its deposit because of lack of campaigning in Munugode Constituency. Also, $50 \%$ of voters believed that presence of Congress led to the division of votes and loss of BJP.

After the victory of TRS, voters are expecting much more development in Choutuppal. For example, development of roads, irrigation facilities, construction of more schools and colleges, more employment opportunities should be provided in Choutuppal town. Final analysis draws us to the conclusion that people at the Choutuppal are influenced by policies of the ruling party. However, distribution of money and liquor played a major role in the electoral behavior.

## LIST OF STUDENTS

| S.NO. | GROUP | H.T NO. | $\begin{aligned} & \text { STUDENT } \\ & \text { NAME } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 1 | B.A. I YEAR(E.P.P) | 1175-22-111-002 | MUSKHAN |
| 2 | B.A. I YEAR (E.P.P) | 1175-22-111-004 | PRIYA |
| 3 | B.A. I YEAR (HEPS) | 1175-22-129-002 | ROSHINI |
| 4 | B.A. I YEAR (HEPS) | 1175-22-129-005 | G. AKSHITHA |
| 5 | B.A. I YEAR (HEPS) | 1175-22-129-008 | RAMA |
| 6 | B.A. I YEAR (HEPS) | 1175-22-129-011 | SOHA |
| 7 | B.A. I YEAR (HEPS) | 1175-22-129-013 | BINDU |
| 8 | B.A. I YEAR(HPP) | 1175-22-156-001 | HUMA |
| 9 | B.A. I YEAR(HPP) | 1175-22-156-006 | SRAVANI |
| 10 | B.A. II YEAR(HPP) | 1175-21-156-001 | ADITI |
| 11 | B.A. II YEAR(HPP) | 1175-21-156-002 | SREEJA |
| 12 | B.A. II YEAR(HPP) | 1175-21-156-005 | FATIMA |
| 13 | B.A. II YEAR(HPP) | 1175-21-156-006 | SHANMITHA |
| 14 | B.A. II YEAR(HPP) | 1175-21-156-010 | TEJASWINI |
| 15 | B.A. II YEAR(HPP) | 1175-21-156-011 | VAISHNAVI |
| 16 | B.A. II YEAR(HPP) | 1175-21-156-012 | NAZIYA |
| 17 | B.A. II YEAR(HPP) | 1175-21-156-014 | PRIYANKA |
| 18 | B.A. II YEAR(HPP) | 1175-21-156-015 | TEJESHWARI |
| 19 | B.A. II YEAR(HPP) | 1175-21-156-019 | VACHANA |
| 20 | B.A. II YEAR(HPP) | 1175-21-156-021 | YASHIKA |
| 21 | B.A.II YEAR (HEPS) | 1175-21-129-001 | AKHILA |
| 22 | B.A.II YEAR (HEPS) | 1175-21-129-002 | SRILATHA |
| 23 | B.A.II YEAR (HEPS) | 1175-21-129-003 | NALINI |
| 24 | B.A.II YEAR (HEPS) | 1175-21-129-004 | DURDANA |
| 25 | B.A.II YEAR (HEPS) | 1175-21-129-005 | GOWTHAM |
| 26 | B.A.II YEAR (HEPS) | 1175-21-129-006 | AMBIKA |
| 27 | B.A.II YEAR (HEPS) | 1175-21-129-007 | AKSHAYA |
| 28 | B.A.II YEAR (HEPS) | 1175-21-129-008 | SHYAMALA |
| 29 | B.A.II YEAR (HEPS) | 1175-21-129-010 | MANA FATIMA |
| 30 | B.A.II YEAR (HEPS) | 1175-21-129-011 | NIHARIKA |
| 31 | B.A.II YEAR (HEPS) | 1175-21-129-012 | PRAVALIKA |
| 32 | B.A.II YEAR (HEPS) | 1175-21-129-014 | FAROOQUI |
| 33 | B.A.II YEAR (HEPS) | 1175-21-129-015 | SNEHA |
| 34 | B.A.II YEAR (EPP) | 1175-21-111-002 | FOUZIA |
| 36 | B.A.II YEAR (EPP) | 1175-21-111-003 | HARINI |
| 37 | B.A.II YEAR (EPP) | 1175-21-111-004 | MANTUHA |


| 38 | B.A.II YEAR (EPP) | 1175-21-111-006 | SAKINA |
| :---: | :---: | :---: | :---: |
| 39 | B.A.II YEAR (EPP) | 1175-21-111-007 | SHRUTHILAYA |
| 40 | B.A.II YEAR (EPP) | 1175-21-111-010 | LAHARI |
| 41 | B.A.III YEAR (EPP) | 1175-20-111-001 | NISHITHA |
| 42 | B.A.III YEAR (EPP) | 1175-20-111-004 | ANITHA |
| 43 | B.A.III YEAR (EPP) | 1175-20-111-008 | PRASANNA |
| 44 | B.A.III YEAR (EPP) | 1175-20-111-009 | ROHINI |
| 45 | B.A.III YEAR (EPP) | 1175-20-111-013 | NIHARIKA |
| 46 | B.A.III YEAR (HEPS) | 1175-20-129-002 | JANSI |
| 47 | B.A.III YEAR (HEPS) | 1175-20-129-004 | SOWJANYA |
| 48 | B.A. III YEAR (HEPS) | 1175-20-129-007 | SRINITHYA |
| 49 | B.A.III YEAR (HEPS) | 1175-20-129-009 | NIKHILA |
| 50 | B.A.III YEAR (HEPS) | 1175-20-129-010 | KAVERI |
| 51 | B.A.III YEAR (HEPS) | 1175-20-129-012 | SHIRISHA |
| 52 | B.A.III YEAR (HEPS) | 1175-20-129-013 | MAHESHWARI |
| 53 | B.A.III YEAR (HEPS) | 1175-20-129-014 | AKSHITHA |
| 54 | B.A.III YEAR (HEPS) | 1175-20-129-017 | AKANKSHA |
| 55 | B.A.III YEAR (HEPS) | 1175-20-129-018 | SRINIKA |
| 56 | B.A.III YEAR (HPP) | 1175-20-156-001 | TEJASWINI |
| 57 | B.A.III YEAR (HPP) | 1175-20-156-008 | PRATHIBHA |
| 58 | B.A.III YEAR (HPP) | 1175-20-156-010 | NEHA |
| 59 | B.A.III YEAR (HPP) | 1175-20-156-012 | AKIHILA |
| 60 | B.A.III YEAR (HPP) | 1175-20-156-014 | ANUSHA |
| 61 | B.A.III YEAR (HPP) | 1175-20-156-018 | POOJA |
| 62 | B.A.III YEAR (HPP) | 1175-20-156-019 | DEEPIKA |
| 63 | B.A.III YEAR (HPP) | 1175-20-156-020 | ASHWINI |
| 64 | B.A.III YEAR (HPP) | 1175-20-156-002 | SARESIJA NILAYA |
| 65 | STAFF | DR. B. MANGA REVATHY VARA LAKSHMI ANITHA NIRALI RAJAN THIRUPATHI |  |
| 66 | STAFF |  |  |
| 67 | STAFF |  |  |
| 68 | STAFF |  |  |
| 69 | STAFF |  |  |
| 70 | STAFF |  |  |

## Student Survey at 83 ${ }^{\text {rd }}$ All India Industrial Exhibition, Nampally, Hyderabad - 2024

Hyderabad Numaish is the largest Consumer Exhibition in the state of Telangana. An annual event which starts on the New Year eve is the only event that is organised for a of one and half month i.e. for 46 days.

Numaish is organised at exhibition groumds, Nampally, Hyderabad every year. What makes this exhibition unique is the number of choices that it offers to the customers. The exhibition features dry fruits and handicrafts of Jammu and Kashmir to handmade garments from Uttar Pradesh, West Bengal and Madhya Pradesh, handicrafts from all over India and electronic goods of the best brands in the country. There are special stalls covering DWACRA, MEPMA and other Telangana Cooperatives.

Management students who are would be entrepreneurs can learn practically from problems faced by the stall owners and the strategies they device to solve the issues. Students are encouraged to ask questions to the stall owners about some of the topics they learnt in Marketing and understand the working models and also come up with practical recommendations.

A Market research survey was conducted by I Semester students, Batch: 2023-25 as part of their academic program. The inquiry method of problem solving has been used to equip the students with marketing and selling skills of modern environment. The assignment helped the students to examine and analyse the organisational problems with real time experiences of the stall members. Students could understand the entrepreneurial challenges, vivid business models and their competitive forces.

The following are two specimen reports of the student groups who conducted the survey in the $83^{\text {rd }}$ All India Industrial Exhibition.


Presented by:
Tisha- 117523672026
Sonia- 117523672019
A. Sowmy-117523672030
J. Harini- 117523672027
K.Vordhini- 117523672023

Table of Contents:-

1) Introduction
2) Content. (About small Scale businesses)
3) Conclusion
4) Recommendation
5) Bibliography

## INTRODUTION:-

This repart is about the New enterpreneurs and the small scale business
at "All India Industrial Exhibition."

- There Establishing year
- Branches
- Product types they sell
- Business model
- Raw material source
- The problem they face
- Advertisement etc

GULMOHAR BOUTI

- Owner's Name:- Ayesha Baquer, thjera Braque.
- Origin: Hyderabad
- Established : 2010
- Branch : Malakpet, Toli chowki
- Business Model: Business to customers, Business to Business
- Contact details: 9652912215,6305797230
- Product Type: clothes. Jewellary (tlandmade products)
- Raw Material : They make there own raw material with help of their own workers (Karigar)
- Advertisements: News paper, social Media (Instagram, facebook etc)
- Price: Jewellery - Rs 50 to Rs 5000 , clothes - RS 1500 to Rs 40000
- customers: World wide customers
- Reseller or Retailer: Resellers (they supply their final product to customers in bulk for further
- challenges: selling)
- Time Management
- Action planning
- competition
- They won second Place Award in Numaish in 2023

Guumohar Boutique 9652912215 .
S- NO-651
Ayesha Baquer a Hajera baquer
Are

$$
9^{\text {th }} J_{A N} 2024
$$



- Ouncis Name : Munsadali
- Origin : vtlar Badeth
- Established : sincelast a Erenteation
- Branth : Metuguda. Bowenpally. "Tirumalagini
- Contart details : 9347998531
- Business madel: Business to customer, Business to Business
- Pratuct type : conpet. Gyeen interior, wallpaper, Doormat
- Maneffacture : UtlarPradesh. Kashmir
- Advertisements : Youtube. Justdial Google
- Price : 200 to $1,00,00$ (depends on the Quality of the product)
- Sale season : winter
- Profitmargir : 13 to $15 \%$
- Reseller or Retailer: Reßellers
- Challenges: Transportation, Raw material.

$$
\begin{aligned}
& \begin{array}{l}
\text { Stallm. } \\
2436
\end{array} \\
& \text { Name- Kohinoor Copsos } \\
& \text { Munghed As. } \\
& \text { Mifur \& } \\
& \text { Milzozy }
\end{aligned}
$$



MODERN FOOT WEAR
Sstallita: 2364 2267\}

- Owner's Name : Khaja samiuddin
- Origin : Hyderabad
- Established : since 40years
- Branch : MPMMall (abide)
- Contact details: 6300815347
- Business model: Business to customer
- Product type : Different kinds of footwear
- Manufacture : Mumbri, Delhi
- Advertisements : no promotion
- Price $\quad: 20010600$ (depend on the product)
- Profit: $10 \% 1015 \%$
- Reseller or Retailer: Resertler None
- Challenges : supply chain, change in customer preference

MODERN FOOT WEAR single arlo (2364-2369) thalia bani ucolelin


$$
09-01-24
$$




- Owners Name: Odisha Static coo
- Origin : Odisha
- Established: 1959
- Branch : Delhi,tlyderabad, Mum
- contact details: www utkalikaodisha
- Product type: Handlooms and land
- Manufacture: Odista
- Advertisements: TV and Newspaper
- Price: cottar save RS1500 to Rs 3000
- Price strategy: Discount
- Profit: Non-prepitable Business

Slate. Wane.


64 years of Excellence

Shop Online: www.utkalikaodisha.com


Odisha State Cooperative Handicrafts Corporation Ltd. (Utkalika) (Handlooms, Textiles \& Handicrafts Dept., Govt. of Odisha)
is cor

$$
\frac{10,40}{09101124}
$$

831 gestc3s.

UTKALIKA
\{stalino: 2101-2102\}

- Owner's Name: Odisha State co-operative Handinofter corporation Ltd
- Origin : odisha
(Sponsered Gout of adisha
- Established: 1957 to promote odisha culture)
- Branch : Dethi, Hyderabad, Mumbai, Anse, Bengalure, Kolkata
- Contact details: www-utkalikaodisha-con
- Product type: Handlooms and Hlanderaftos
- Manufacture: Odisha
- Advertisements: TV and Newspaper
- Price: cotlan sarce RS 1500 to Rs3000, silksaree Rs 6000 to Rs 30000 (depend on the product)
- Price strategy: Discount
-Profit: Non-profitable Business
Slatl. Nave. UTKARIRA.
odislat state corop. handicrarIS corp. LTD.

Lens
o919124.

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831 \mathrm{xes} 1038
$$



LAKSHIMI TERO QUOTO POTS
SStall Mo: Shevalamben E-zox-1?

- Ouncris Name: Lahshmi
(inatholled ty small industie's develoment berk of Indi.)
- Established : aciz
- Granch : tlydeatas
- Product Type : cups. Fote Idols Earther cookenus

Rawmaterial: clay (sely)

- Adventisement: Nora
- frice : CDepend an thre praduct)
- Challenge : Trarsportation Srectiage of tex geads
- saleGoods : wrolestle Retail
- Business Model: Suiness to corsumer

Lakshmi Tarracalts poto mfy stupflos
Daga Lakshmi
Nisharell alolzo2y


## insion:-

conclusion this report has summarized the Key finding and insights from sis of the small Business. The major findings of the report includes: mall business are open for Business to business and business to consumer model - They have well l defined business model and strategy for growth

- They have better communication skills and understanding about the consumer The report also identified some areas where the small business face problems - The small business could improve their marketing strategy
- The can ever improve the transportation with less expenses
- The small business have more financial risk compare to large business


## Recommendation:-

- To decrease there transportation charges they car make use of carpooling, public transport etc-
- To improve marketing they can use social media, build target market
- They can hire cheaper labour jor leal shops to reduce the labour expense
- They can sell their product online to increase sales and expand the business
- They can study market and explore manufactures and make more business with them


## Reference $0:-$

The date above is a primary data, which is directly collected from the source through survey or $9-\operatorname{Jan}-2024$.

## Customer survey

DONE BY SYEDA FARWA AND NAZIA BEGUM
MBA $I$ YEAR


Where we have done the survey:


## Questionnaire:

1. Name
2. Age
3. Where do they came from?
4. How many times do they visit?
5. Favourite stall
6. What food item they like?
7. Approx amount they spent?
8. Did you done bargaining?
9. At what time u came?
10. feedback

## Let's see the analysis:

## Age of the customers:

- Most of the customers were the age of 21!
- few of them was at the age of 40


## Age

15 responses


## Where do they come from?

Where do they came frm?
15 responses

- Most of the customers were from Mehdipatnam
- Few of them were from Malakpet
- And one of the customers was from out of Hyderabad tht is frm Banglore.



## How many times do they visit:

- Most of the customers visited the exhibition more than 5 times

How many times do they visit?
15 responses


## Favourite stall:

Cosmetics, food and apparel
Food and clothes
Bedsheets, kitchenware \& dresses
Dress \& sarees
Factory outlet
Toys shop
Cosmetic stalls
Factory outlet
All the stalls

Delhi chat

Masqati

Sahil leather goods

Sahil leather goods

No

Lucknow dresses

Bengali sarees

Lucknow bedsheets

Agra chat

## What Food item do they like

- Many customers love the masqati icecream
- Pista house haleem was also the most favt food stall of the customers

What food they like the most?
20 responses


## Approximately amount they spent:

## Approx amount spent?

- Most customers spend the money more than 4000


## 20 responses



## Did they done bargaining?

- Most of the customers had done bargaining.
- They recived discounts as 20\%-50\%

Did you bargain?
20 responses


## Arrival of their time:

- Most customers arrived at 12.00 pm

At what time do they came?
15 responses


## Feedback from the customers

| Well maintained | Satisfied |
| :--- | :--- | :--- |
| Jhuley mast haii | It's awesome place $\cdots$ enjoyed a lot |
| Nice | Excellent |
| Train achi haii | Environment is cool |
| Not much crowd | Water filters should $b$ there |
| Enjoyable place | Dhoop bhot hai |
| Everything is good | Amazing |
| In some stalls they are fixed prices | Well maintained |

## Any Questions ???

## Thank you!!

# Using analytical tools like MS-Excel etc. for Class work and Projects 

Students of Under-graduation and Post-graduation are encouraged to use analytical tools like MS-Excel, Ms-Access etc., to conduct statistical and other empirical analysis to arrive at meaningful conclusions to already identified problems or objectives of the study.

MS-Excel is used to calculate descriptive statistics and simple percentages from the master sheet excel file. Further, data analysis techniques such as ANOVA, Correlation etc., are used to interpret the data.

Sample sheets of the above explained analysis are attached below.

## INTERPRETATION - GOLD: <br> FOR 2020:

The Descriptive Statistics Viz. Mean, Minimum, Maximum, Standard Deviation, Skewness and Kurtosis is presented in Table No.4.9 for interpreting the secondary data. The minimum daily turnover of Gold in the year 2020 is as low as Rs. 78.62 crore and maximum turnover is Rs. 6241.59 crore and the variation in turnover measured by standard deviation is 1065.24 indicating high volatility. Among the commodity market participants turnover of Other participants is varying to a greater extent compared to other participants had the highest standard deviation of 512.49 with a minimum turnover as low as Rs. 51.84 crore and maximum turnover of Rs. 2653.93 crore. Proprietary traders registered a maximum turnover of Rs. 3196.94 crore and minimum turnover of Rs. 23.73 crore. Hedgers registered the minimum turnover of Rs.3.04 crore and maximum turnover of Rs. 1457.86 crore Domestic financial institutional investors showed the minimum turnover of 0 and maximum turnover of Rs. 8.92 crore. Farmers and Foreign participants are not participating in gold Options for the year 2020

## FOR 2021:

The minimum daily turnover of Gold in year 2021 is as low as Rs. 55.59 crore and maximum turnover is Rs. 6311.66 crore and the variation in turnover measured by standard deviation is 1056.42 indicating high volatility. Among the commodity market participants turnover of Other participants is varying to a greater extent compared to other participants had the highest standard deviation of 652.42 with a minimum turnover as low as Rs. 33.99 crore and maximum turnover of Rs.4485.34 crore. Hedgers showed a minimum and maximum turnover of Rs.2.05 crore and Rs. 1361.72 crore. Proprietary traders registered a maximum turnover of Rs.2014.01 crore and minimum turnover as low as Rs. 16.10 crore. Domestic financial institutional investors portrayed a minimum turnover of 0 and maximum turnover of Rs. 4.56 crore. Farmers and Foreign participants are not participating in gold Options for the year 2021.

TABLE No: 4.10: DESCRIPTIVE STATISTICS OF OPTIONS TURNOVER OF SILVER AND ZINC
(Rs.IN CRORES)

|  | SILVER |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Turnover | FPO | H | PT | D | FP | 0 |
| 2020 | MEAN | 297.44 | 0.00 | 125.97 | 55.48 | 0.03 | 0.00 | 115.97 |
|  | MINIMUM | 4.10 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 1.46 |
|  | MAXIMUM | 1481.16 | 0.00 | 760.50 | 523.09 | 4.52 | 0.00 | 597.74 |
|  | SD | 289.15 | 0.00 | 123.91 | 70.72 | 0.34 | 0.00 | 109.74 |
|  | SKEWNESS | 1.95 | 0.00 | 2.22 | 3.11 | 11.45 | 0.00 | 1.88 |
|  | KURTOSIS | 3.66 | 0.00 | 5.87 | 13.07 | 131.00 | 0.00 | 3.69 |
| 2021 | MEAN | 271.61 | 0.00 | 33.12 | 54.97 | 0.00 | 0.00 | 183.52 |
|  | MINIMUM | 2.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.67 |
|  | MAXIMUM | 1460.02 | 0.00 | 247.37 | 340.10 | 0.00 | 0.00 | 1096.02 |
|  | SD | 220.03 | 0.00 | 43.99 | 59.73 | 0.00 | 0.00 | 156.35 |
|  | SKEWNESS | 2.04 | 0.00 | 1.87 | 2.12 | 0.00 | 0.00 | 2.37 |
|  | KURTOSIS | 6.06 | 0.00 | 3.93 | 4.91 | 0.00 | 0.00 | 8.51 |
|  | ZINC |  |  |  |  |  |  |  |
|  |  | Total Turnover | FPO | H | PT | D | FP | 0 |
| 2020 | MEAN | 0.80 | 0.00 | 0.16 | 0.25 | 0.00 | 0.00 | 0.47 |
|  | MINIMUM | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
|  | MAXIMUM | 2.56 | 0.00 | 0.77 | 1.17 | 0.00 | 0.00 | 1.79 |
|  | SD | 0.77 | 0.00 | 0.23 | 0.36 | 0.00 | 0.00 | 0.49 |
|  | SKEWNESS | 0.99 | 0.00 | 1.75 | 1.56 | 0.00 | 0.00 | 1.21 |
|  | KURTOSIS | -0.06 | 0.00 | 1.44 | 1.36 | 0.00 | 0.00 | 1.25 |
| 2021 | MEAN | 0.53 | 0.00 | 0.01 | 0.26 | 0.00 | 0.00 | 0.25 |
|  | MINIMUM | 0.22 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.11 |
|  | MAXIMUM | 2.05 | 0.00 | 0.15 | 1.03 | 0.00 | 0.00 | 0.87 |
|  | SD | 0.52 | 0.00 | 0.04 | 0.26 | 0.00 | 0.00 | 0.23 |
|  | SKEWNESS | 2.29 | 0.00 | 4.24 | 2.30 | 0.00 | 0.00 | 2.11 |
|  | KURTOSIS | 4.58 | 0.00 | 18.00 | 4.64 | 0.00 | 0.00 | 3.50 |

### 4.3 ANOVA

ANOVA (Analysis of Variance) is a statistical tool to test the homogeneity of different groups based on their differences. ANOVA is the method of analysing the variance in a set of data and dividing the variance into groups according to the sources of those variations. It is based on the principle that the total amount of differences in a set of data can be divided into two types, the amount that can be attributed to chance and the other that is caused due to specific causes.

In a population, ANOVA is used to determine the difference between the means of the samples by analysing the variation within each of the samples, and relative to the variation between the samples. While performing ANOVA, two assumptions are made where the first is that the samples are extracted from a normal population, and the second is that all factors other than those being tested are controlled.

## SINGLE FACTOR ANOVA

Single factor ANOVA also called as One-way ANOVA is a short-cut method where a single factor is considered, and its effect on the samples is observed. It is a commonly used technique as it is a more convenient method. This method is performed when the means of the samples and/or the mean of.

## ANOVA IS CONDUCTED FOR THE FOLLOWING COMMODITIES:

Gold $\rightarrow 2020$ and 2021

Silver $\rightarrow 2020$ and 2021

Copper $\rightarrow 2020$ and 2021

Crude oil $\rightarrow 2020$ and 2021

Zinc $\rightarrow 2020$ and 2021

NULL HYPOTHESIS: There is no significant difference in the turnover of participants among Futures and Options for Gold.

TABLE No: 4.17: AVERAGE TURNOVER OF GOLD DURING THE YEAR 2020
(Rs. IN CRORE)

| Participants | Futures | Options |
| :--- | ---: | ---: |
| FPOs/ Farmers | 0.00 | 0.00 |
| VCPs/ Hedger | 1274.34 | 323.16 |
| Proprietary traders | 5976.28 | 336.38 |
| Domestic Financial institutional investors | 7.97 | 0.18 |
| Foreign Participants | 0.00 | 0.00 |
| Others | 10314.02 | 643.14 |
| Total Turnover | 17571.29 | 1302.81 |

Farmers and Foreign participants are not participating in gold Futures and Options.
ANOVA: SINGLE FACTOR

## SUMMARY

| Groups | Count | Sum | Average | Variance |
| :--- | ---: | ---: | ---: | ---: |
| Column 1 | 6 | 17572.61 | 2928.77 | 18450554.86 |
| Column 2 | 6 | 1302.85 | 217.14 | 69660.44 |

ANOVA

| Source of <br> Variation | SS | d.f. | MS | F | P-value | F crit |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Between Groups | 22058755 | 1 | 22058755 | 2.38 | 0.15 | 4.96 |
| Within Groups | 92601077 | 10 | 9260108 |  |  |  |
| Total | $1.15 \mathrm{E}+08$ | 11 |  |  |  |  |

The above table suggests that the calculated value of F is 2.38 which is less than the table value of 4.96 at $5 \%$ with d.f. being $\mathrm{v}_{1}=1$ and $\mathrm{v}_{2}=10$ and hence could have arisen due to a chance. This can be concluded that the difference in turnover of participant among Futures and Options is insignificant and is just a matter of chance. There is no significance difference in thee mean turnover among the 4 participants who are participating in the Futures and Options contract wherein the underlying asset is Gold.

NULL HYPOTHESIS: There is no significant difference in the turnover of participants among Futures and Options for Gold.

Table No: 4.18: AVERAGE TURNOVER OF GOLD DURING THE YEAR 2020
(Rs. IN CRORE)

| Participants | Futures | Options |
| :---: | ---: | ---: |
| FPOs/ Farmers | 0.00 | 0.00 |
| VCPs/ Hedger | 861.00 | 136.66 |
| Proprietary traders | 3601.25 | 387.35 |
| Domestic Financial institutional investors | 36.98 | 0.03 |
| Foreign Participants | 0.00 | 0.00 |
| Others | 5934.74 | 832.90 |
| Total Turnover | 10433.97 | 1356.94 |

Farmers and Foreign participants are not participating in gold Futures and Options.

## Anova: Single Factor

## SUMMARY

| Groups | Count | Sum | Average | Variance |
| :--- | ---: | ---: | ---: | ---: |
| Column 1 | 6 | 10433.96 | 1738.99 | 6157638.96 |
| Column 2 | 6 | 1356.94 | 226.16 | 111111.17 |

ANOVA

| Source of Variation | SS | d.f. | MS | F | P-value | F crit |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Between Groups | 6866033 | 1 | 6866033 | 2.19 | 0.17 | 4.96 |
| Within Groups | 31343751 | 10 | 3134375 |  |  |  |
| Total | 38209784 | 11 |  |  |  |  |

The above tables suggests that the calculated value of $F$ is 2.19 which is less than the table value of 4.96 at $5 \%$ with d.f. being $\mathrm{v}_{1}=1$ and $\mathrm{v}_{2}=10$ and hence could have arisen due to a chance. This can be concluded that the difference in turnover of participant among Futures and Options is insignificant and is just a matter of chance. There is no significance difference in thee mean turnover among the 4 participants who are participating in the Futures and Options contract wherein the underlying asset is Gold.

NULL HYPOTHESIS: There is no significant difference in the turnover of participants among Futures and Options for Silver.

Table No: 4.19: AVERAGE TURNOVER OF SILVER DURING THE YEAR 2020
(Rs. IN CRORE)

| Participants | Futures | Options |
| :---: | ---: | ---: |
| FPOs/ Farmers | 0.00 | 0.00 |
| VCPs/ Hedger | 875.52 | 125.97 |
| Proprietary traders | 7847.97 | 55.48 |
| Domestic Financial institutional investors | 1.31 | 0.03 |
| Foreign Participants | 0.00 | 0.00 |
| Others | 11820.63 | 115.97 |
| Total Turnover | 20545.21 | 297.44 |

Farmers and Foreign participants are not participating in gold Futures and Options.

## ANOVA: SINGLE FACTOR

## SUMMARY

| Groups | Count | Sum | Average | Variance |
| :--- | ---: | ---: | ---: | ---: |
| Column 1 | 6 | 20545.43 | 3424.24 | 26346407 |
| Column 2 | 6 | 297.45 | 49.58 | 3529.69 |

ANOVA

| Source of <br> Variation | SS | d.f. | MS | F | P-value | F crit |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| Between Groups | 34165049 | 1 | 34165049 | 2.59 | 0.13 | 4.96 |
| Within Groups | $1.32 \mathrm{E}+08$ | 10 | 13174968 |  |  |  |
| Total | $1.66 \mathrm{E}+08$ | 11 |  |  |  |  |

The above table suggests that the calculated value of F is 2.59 which is less than the table value of 4.96 at $5 \%$ with d.f. being $\mathrm{v}_{1}=1$ and $\mathrm{v}_{2}=10$ and hence could have arisen due to a chance.

This can be concluded that the difference in turnover of participant among Futures and Options is insignificant and is just a matter of chance. There is no significance difference in the mean turnover among the 4 participants who are participating in the Futures and Options contract wherein the underlying asset is Silver.

## Problem Solving Methodology Using MS-Excel

Students Pursuing MBA are encouraged to use MS-Excel in calculating Co-relation, Chisquare, Pay Role calculations etc. This will help students to interpret the given data for decision making.
6) The following Database relates to the student's marks and attendance

| STUDENTS |  |
| ---: | ---: |
| ATTENDENCE | MARKS |
| 30 | 40 |
| 40 | 50 |
| 50 | 70 |
| 60 | 80 |
| 70 | 90 |
| 80 | 93 |

Is there any relation between Attendance and marks? If so use Excel and comment on the relationship. (Correlation)

## STEPS:

1. Open excel worksheet.
2. Enter the title "CALCULATION OF CORRELATION".
3. Enter the column headings as ATTENDANCE in a2 cell and MARKS in B2 cell.
4. Enter the values of attendance in A 3 to A 10 cells.
5. Enter the values of marks in B3 to B10 cells.
6. Enter CORRELATION in a 9 cell.
7. Place the cursor in B 9 cell.
8. Select Insert menu and select function option.
9. Select Statistical from function category and CORREL from function name.
10. Click on OK button.
11. Select the range for arrayl as $\mathrm{A} 3: \mathrm{A} 8$ and array 2 as $\mathrm{B} 3: \mathrm{B} 8$.
12. Click on OK.
13. The output is displayed in B9 as 0.978596 .

## OUTPUT:

| CALCULATION OF |  |  |
| :--- | ---: | ---: |
| CORRELATION | MARKS |  |
| ATTENDANCE | 30 | 40 |
|  | 40 | 50 |
|  | 50 | 70 |
|  | 60 | 80 |
|  | 70 | 90 |
|  | 80 | 93 |
|  | 0.978596 |  |

2) Create a worksheet of employees database with the following fields-Employee name, Designation, Basic salary, DA, HRA, Gross salary, PF, Net salary
Calculations: Gross salary= Basic salrary+DA+HRA

| Net salary | $=$ Gross salary-PF |
| :--- | :--- |
| DA | $=20 \%$ of basic salary |
| HRA | $=5 \%$ of basic salary |
| Pf | $=10 \%$ of basic salary |

Enter 5 employees' details and retrieve the employee's data whose basic salary is greater than Rs 10,000.

| EMPLOYEE DATABASE |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.INO | E.NAME | DESIC. | BASIC SAL | DA | HRA | SALARY | PF | SAL |
| 1 | Mr.Rao | MD | 15,900 |  | 。 |  |  |  |
| 2 | Mrs.Sheela | Typist | 5,000 |  |  |  |  |  |
| 3 | Mr.Reddy | Accountant | 3,000 |  |  |  |  |  |
| 4 | Mr.Raghu | Clerk | 2,000 |  |  |  |  |  |
| 5 | Mr.Ramu | Manager | 10,000 |  |  |  |  |  |

## STEPS:

1. Open a new Excel worksheet.
2. Enter the title "EMPLOYEE DATABASE".
3. Enter the column headings S.NO, E.NAME, DESIG, BASIC SAL, DA, HRA, GROSS SAL, PF, and NET SAL.
4. Enter the details of S.NO, E.NAME, DESIG, and BASIC SAL.
5. Place the cursor in E3 column i.e. DA column and enter the formula=D3*20\% and press enter.
6. Drag the fill hand!e to copy the formula to the remaining cells of the DA column.
7. Place the cursor in F3 column i.e. HRA column and enter the formula=D3*5\% and press enter.
8. Drag the fill handle to copy the formula to the remaining cells of the HRA column.
9. Place the cursor in G3 column i.e. Gross Sal column and enter the formula=sum (D3:F3) and press enter.
10. Drag the fill handle to copy the formula to the remaining cells of the Gross Sal column.
11. Place the cursor in H 3 column i.e. PF column and enter the formula $=\mathrm{D} 3 * 10 \%$ and press enter.
12. Drag the fill handle to copy the formula to the remaining cells of the PF column.
13. Place the cursor in I 3 column i.e. NET SAL column and enter the formuia=G3-H3 and press enter.
14. Drag the fill handle to copy the formula to the remaining cells of the NET SAL column.
15. To retrieve the employee's data whose basic salary is greater than 10,000 place the cursor at I9 and select the NET Sal column.
16. Select data menu and select Filter option.
17. Select Auto filter.
18. Click on the arrow (a top down menu appears).
19. Select custom from the top down menu.
20. Select "is greater than" and enter amount as ' 10.000 '.
21. Select Ok button.
22. Only the record whose salary is greater than 10,000 is displayed.

## OUTPUF:

| EMPLOYEF DATABASE |  |  |  |  |  | $\begin{aligned} & \text { GROSS } \\ & \text { SALARY } \end{aligned}$ | PF | $\begin{aligned} & \text { NET } \\ & \text { SAL } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.NO | E.NAME | DESIG. | BASIC SAL | DA | HRA |  |  |  |
| 1 | MrRao | MD | 15,000 | 3,000 | 750 | 18,750 | 1,500 | 17,250 |
| 2 | Mrs.Sheela | Typist | 5,000 | 1,000 | 250 | 6.250 | 500 | 5,750 |
| 3 | Mr.Reddy | Accountant | 3,000 | 600 | 150 | 3,750 | 300 | 3450 |
| 4 | Mr.Raghu | Clerk | 2,000 | 406 | 100 | 2,500 | 200 | 2300 |
| 5 | Mr.Ramu | Manager | 10,000 | 2,000 | 500 | 12,500 | 1,000 | 11,500 |

# SAROJINI NAIDU VANITA MAHA VIDYALAYA DEPARTMENT OF BUSINESS MANAGEMENT 

Students MBA first year participated in a business game on idea generation and team work. With the same resources provided to all teams, each team was supposed to build the tallest tower, which stands independently. This game encourages team building among students and creative thinking.




## CASE STUDY

Case Study is a tool to provide students with problems or challenges they may face in real life or corporate world. This helps students to learn analysing a situation from all facets and find solutions that are practical.

## Sample Case Study

## Amazon.com: Obsessed with Creating Customer Value and Relationships

When you think of shopping online, chances are good that you think first of Amazon. The company sells everything from books, music, electronics, tools, housewares, apparel, and groceries to loose diamonds and Maine lobsters.

From the start, Amazon has grown explosively. Its annual sales have rocketed from a modest $\$ 150$ million in 1997 to more than $\$ 74$ billion today. What has made Amazon such an amazing success story? Founder and CEO Jeff Bezos put it in three simple words: "Obsess over customers." To its core, the company is relentlessly customer driven.

Amazon wants to deliver a special experience to every customer. Most regulars feel a surprisingly strong relationship with the company, especially given the almost complete lack of actual human interaction.

Visitors to Amazon.com find a huge selection, good value, low prices, and convenience. But it's the "discovery" factor that makes the buying experience really special. Amazon.com has become a kind of online community in which customers can browse for products, research purchase alternatives, share opinions and reviews with other visitors, and chat online with authors and experts. That ability to share opinions and reviews builds relationships with the company and with other customers.

Indeed, Amazon has become the poster child for companies that are obsessively and successfully focused on delivering customer value.

## Go through Amazon.com website and answer the following discussion questions. <br> \section*{Discussion Questions:}

1. The very first marketing story in the text is about Amazon.com. Let's take a quick look at the "Get to Know Us," "Make Money with Us," and "Let Us Help You" links at the bottom of the home page and see what we can learn about the company and how it operates. Just looking at this Web page, what stands out about Amazon.com? (The point: Everything on the site points to Amazon's obsession with its customers. It's all about connecting the company and the customers.)
2. How has, what we are seeing on this site contributed to Amazon's performance? How has Amazon.com been successful? (As pointed out in the Amazon.com story, thanks in large part to its obsession with customer satisfaction and customer experience, the company has grown astronomically and profitably. Even in a slow retail economy, Amazon's sales have soared in recent years. Thus, by creating value for customers, Amazon.com has captured value from customers in return.)
3. Why did the authors choose Amazon.com as the very first company to highlight in Chapter 1 and in the entire text? How does this opening story relate to the major
points made in the rest of the chapter? (This question should lead naturally into major Chapter 1 concepts: What is marketing and what is the marketing process? What is customer-driven marketing and why are customer value, satisfaction, and relationships so important?)

Source: http://testbankwizard.eu/Solution-Manual-for-Principles-of-Marketing-16th-Edition-by-Kotler

## CASE STUDY

NAME<br>B.KAVITHA<br>CLASS<br>MBA 2ND YEAR SEMESTER 3

## ROLL NUMBER

1175-22-672-020
GUIDE NAME
MRS.A.SRAVANI MADAM
Sarojini Naidu Vanita Maha Vidyalaya (Affiliated to Osmania University) Exhibition Grounds, Nampally,

Hyderabad-500001
(2022-2024)

## CASE 1 How Come They Make More Than Me?

Fran Jefferson began her job as the supervisor of the Training Department of Metro Bank and Trust Company almost four years ago. She was generally pleased with the four trainers and one secretary in her unit. Indeed, Fram took pride in her ability to create a high morale and high performance unit. This was particularly pleasing to Fran because they were constantly busy and barely able to keep up with the volume of training expected from them.

Then, early on Wednesday morning, Fran's secretary, Judy Martin, knocked on Fran's door and asked to see her. Fran liked Judy and considered the secretary to be one of her "stars." Indeed, in an effort to develop Judy's talents and abilities, Fran had gone out of her way to give Judy special assignments, including her in all the major planning activities of the department and entrusting her with the administration of certain departmental programs, such as tuition assistance and evaluation follow-through. By now, Judy functioned more as an administrative aide than as a secretary.

It was clear that Judy was upset about something as she seated herself in the chair next to Fran's desk. Slowly, Judy placed a job-posting application form in front of Fran. She would not look her supervisor in the eyes.

Fran was surprised, to say the least. As far as Fran knew, Judy liked both her job and working in the Training Department. In turn, everyone else in the department liked and respected Judy.

Fran looked over the form and said casually, "So you want to post for the executive secretary job in the Branch Mañagement Division." She paused. "Could I ask you for some additional information, Judy? I'm kind of surprised."

Judy looked at her clasped hands, thinking. Fran waited.
Finally, Judy looked up and said: "I noticed in last week's job posting that the executive secretary position is graded as a 14 . Now that's two grades higher than my job!"

She caught her breath. "You know my friend Mary Johnson works over there. She told me that half the time the secretary sits around doing nothing."

Judy continued, gathering some anger in her look and resentment in her voice. "Look, Fran, you know how hard I work, how hard we all work, around here. I mean, I'm always busy. I don't see why I should work in a job graded at a 12 and work twice as hard and yet not be paid the same as that secretary. The job requirements for the job are just a littler higher than mine, and the merit raise you gave me last month hardly helped at all."

Fran listened; then she replied: "It sounds to me, Judy, that you're feeling angry because you think you should be paid more for the work you do and that you want to switch jobs rather than put up with things as they are. Am I right?"

Judy nodded her head in agreement.
Fran knew, though, that the Metro job evaluation system was up to date and that the executive secretary position to which Judy referred did require additional background experience, skills, and responsibilities beyond what was needed in Judy's current job. Because her secretary was such a good employee and a nice person, Fran was quite concerned. She felt strongly that moving to the executive secretary job would not be what Judy really wanted, and she hated to lose Judy, especially if her decision was based on faulty reasoning and the move would not be good for her.

Fran tried to figure out what to do.

The reason given bo Judu Martin for wanting to post for
a position in another department is that she tells that the work she is providing and the pan the is betting is not much fair. She thinks that she con set a good pas for the service or works she is assigned. This is Judy's opinion and she feels this is true.Accordinoly the judy posted a job application form in front of fran which made pron to feel shocked. Judy also thinks that the effort and abilities which she performs in orpathisation is much more than needed. So, she wants the some skills, knowledge, work can be performed in other organisation that can pay more then she is getting now. It is also true because the efforts and work she is performing is no ore than the limited. Judy alto, feels That she maw set an easier and hephes paying job for hes job performance in a new position. It can be true or some times it maw be a false. Because the job mas or mavnot be that much easy than expected and easy fobs cannot be paid a higher salary,
fran respond to judy's request to transfer she has to accept hes transfer letter to make hes more challengable in society. transtering judy
to a different department of ompanisation can allow hes to develop skillets and new connections. It can also lead to increase to enhance hes skills, abilities talents etc.

Fran respond to judie's salary complaints: she Should respond in a polite way. She should understand why all this complaints are being araised. She also should accept that Judy is performing her work more than required tor the job J. Judy is Also performing fran's job which is not actually hes So there should be a pair distribution of past. All these should be recognised by fran and should accept all the complaints.

Judy's decision towards her transfer is her dependable case. I Thourophly support to her decision. Judy's decision can make hes more brouth according to hes perception of pas and recognition can be achieved on the basis of her performance she is performing in recent times. The decision can lead to increase her inner abilities and also the managerial abilities. Fran's role in the case is, she is the supervisor of the Training Department of metro bank and trust company. she was pleased with four trainers and one secretary.

If l were in fran's position, the
upinion on the situation to benefit the organisation in Judy's case can be treated in la well mannered. I would have assigned the job to all the members in a equal manned I would not be much dependable on jude for mes work. The work y which I have assize ned would be given a fair pay in the form of Incentives for the performance in organisation. If would have given a job burden to july as from 1 would have alloted hes an increase in the poss She is being provided. If I Dive the satifactorg pan to Judy she will be appraised to perform much more and she can be so happily continued be efforts in organisation.

Jude can perform different strategies rather than resunning the Job. The wan be:- St he can explain the supervisor about her pan. She should have communicated with pron about all hes issues being foced in organisation. She would have given hes updated performance report to fran to be recognised in lesses time. Even Judy should not be of That mindset. Some times The manager and employees Should have a positive relationship that can breaktheir calmness and complaints /issues in an organisation. Sometimes that positive relattonslup can solve all existing problems to some intent.

Kinetic Honda - The Break-Up: Break-Up Blues
It was in August 1998 that the first chinks in the Kinetic Honda Motors Ltd. (Kinetic Honda) armor were reported by Business India. Both Honda and the Firodias of Kinetic were quick to deny rumors of a split, though reports of the Firodias : quietly raising resources to buy out Honda's stake kept surfacing. The Firodias were even reported to have securitised the assets of their twowheeler finance company - 20th Century Kinetic Finance (TCKF) - to raise this money.

Trouble had been brewing since the company recorded a loss of Rs. 6 crore in the first quarter of 1998. Eventually Honda decided to put the matter to rest and called Arun Firodia (Firodia) to Japan in December 1998.
Honda made Firodia an offer - either he buy their $51 \%$ stake or Honda would buy out his $19 \%$ stake. Analysts remarked that it was difficult for Firodia to let go of the company that he had nurtured for the best part of his life Eventually, Firodia negotiated a deal with Honda, to acquire its stake at Rs 45 per share, (when the market price was almost double), at a total cost of Rs 35 crore. He also signed an agreement with them for continuing to manufacture and sell the existing Kinetic Honda models. Honda also agreed to continue providing technical knowhow support in return for royalty and technical fees from Kinetic.

Considering the fact that Honda was the world's biggest and most successful scooter manufacturer, the pullout came as a surprise to industry observers, as it was quite unlcharacteristic of Honda Motor to give up a segment. More so, as just a couple of months earlier, Honda had been reported to be planning to make further investments in Kinetic Hondal. This was seen as a major setback for the company. It was also perhaps the only instance of a Honda failure anywhere in the world.

## Starting Problem!

In 2001, the Kinetic Group had two automobile companies - Kinetic Engineering Ltd and Kinetic Motor Company Ltd. After the December 1998 deal, Kinetic Honda Motor Ltd was renamed Kinetic Motor Company Ltd. Kinetic's story began in 1972 with the founder H.K. Firodia buying the 'Luna' moped's design from a foreign company. The moped, which aimed at capturing the bicycle market, went on to become such a huge success, that Luna became a generic name for mopeds.
In 1985, under Arun Firodia's (H.K.Firodia's son) leadership, Kinetic tied up with Japanese auto major Honda Motor ${ }^{2}$ to form Kinetic Honda Motors Ltd. (KHML) with both the partners holding an equal stake
of $28.56 \%$. The company's primary business was manufacturing scooters. Sales of spare parts formed a minor part of the turnover. The 'KH-100,' the first ungeared scooter in India, proved to be a huge success in the initial stages.
Throughout the 1980 s, Kinetic remained India's largest moped manufaciurer with a $44 \%$ market share and a $15 \%$ share $^{3}$ of the overall two-wheeler market. A decade later, the company's moped market share halved to $22 \%$ and the overall market share figure reached an abysmal 5\%. Also, in 1991, Kinetic, with a turnover of Rs 121 crore, was competing on an equal turf with the Rs 140 crore TVS Suzuki and the Rs 150 core Hero Honda ${ }^{4}$. But by 1999 , while TVS and Hero Honda grew seven times over to Rs 1,018 crore and Rs 1,146 crore respectively, Kinetic just managed to double its turnover.
A major reason for this was the fact that Kinetic seemed to have missed the pulse of the market, which was fast moving towards motorcycles. Kinetic had no motorcycles to offer mainly due to the Honda joint venture stipulations. (Kinetic could not make motorcycles because that meant competing with Hero Honda.) Kinetic's financial position also took a beating in the late 1990s. While sales grew slowly, compared to its competitors, its operating margin was the lowest in the industry because of the high import content of raw materials. Kinetic also had to shelve its plans to launch a small, 500 cc , 2-cyclinder car after a substantial sum was spent on the project ${ }^{5}$.

With Kinetic Honda's fortunes declining, Firodia agreed to let Honda increase its stake to $51 \%$ in 1993, perhaps hoping that if Honda were in control, it would bring in new products more quickly and thereby improve the company's prospects. But Firodia soon realized that this was not to be. At a time when its competitors were spending $1-1.5 \%$ of the turnover on R\&D, Kinetic Honda did not move beyond $0.31 \%$. On advertising, Honda spent just Rs 20 crore during 1993-98. As a result, Kinetic Honda's market share declined steadily during 1996-98.

In 1997-98, Kinetic Honda's sales grew marginally to Rs 353 crore over the previous year, but profit after tax dipped to Rs 2.16 crore from Rs 2.30 crore. This, coupled with the Rs 6 crore loss for the firsi quarter of 1998 made the Firodias give serious thought to parting ways with Honda. Firodia said, "There was no growth, so we decided to review the contract." The new agreement involving the Honda stake sell-off and the technical collaboration arrangement was signed after this. Commenting on this, Firodia claimed, "It's a win-win scheme
for everybody."

Though Firodia claimed that Honda's equity sale decision was taken jointly by both partners, media reports had a different story to tell.

## Souring Ties

Reports claimed that right from the beginning there had been differences between Honda and the Firodias over the issue of management of Kinetic Honda. Firodia admitted that there were serious differences over issues like introduction of new models, advertising expenditure, marketing strategies, etc. As a result, the company suffered in terms of growth and profitability.

Under the joint venture agreement, Kinetic Honda manufactured scooters and Kinetic Engineering made mopeds. Both of them could not manufacture each other's products or motorcycles. Because Honda was present in the motorcycle segment with Hero Honda, the Kinetic group remained in mopeds and scooters. This was not in favor of Kinetic because the moped market had declined considerably during the 1990s. Kinetic had ambitions of becoming a full range twowheeler company as it was strong in operations and also had a large distribution network.
When Kinetic deveioped indigenous technology for its four-stroke step-through vehicle K 400 , a competitor to Hero Honda's Street model, Honda saw it as an unfriendly move.

The Firodias were unhappy about the fact that 'Kinetic,' as an umbrelia brand was not being promoted. Consumers associated the name Kinetic with scooters and 'Luna' with mopeds, but did not see them as belonging to the same business house. To support the Kinetic brand as an umbrella brand with a number of products under it, the Firodias wanted to advertise heavily and bring out new products. According to Sulajja, "The tie-up with Honda was limiting our competitive capabilities."

Kinetic Honda insiders claimed that Honda had always taken a 'half-hearted approach' towards managing the company. They also said that Honda was too preoccupied with other markets such as Indonesia and Thailand which were growing much faster and where, unlike in India, Honda was doing well. Also, Honda's margins were much higher in these markets even a 50 cc Honda scooter cost more in other parts of the world than the lead model being sold in India. Yet, Honda scooters were considered expensive in India. Industry watchers pointed out that Honda, with all its resources, could have easily engineered a product for the Indian roads, but was simply not interested.

Honda claimed that it had decided to pesition itself as a riche player at the upper end of the segment and that segment did not grow as much as the company had anticipated. Company sources said, "We miscalculated the purchasing power of the Indian middle class. We thought it would go up, but it didn't. Instead, the ecenomy went into a tailspin and we couldn't grow." However, Honda admitted that having just a single model for several years had worked to the company's disadvantage. But the investment required to develop and introduce new models was very high, rendering the end product uncompetitive and hence an unattractive proposition. Honda claimed that the Firodias did not have the marketing acumen of the Munjals of Hero Honda. Disagreements over advertising expenditure and the interference of the Firodias in the appointment of dealers widened the rift between the partners.

Kinetic wanted Honda to increase the advertising expenditure, but Honda did not agree. Being a large organization with various decision-making layers, Honda wasn't quick enough to react to the demands of the marketplace. The joint managing director, a Honda nominee, was changed every three years. Thus, by the time he understood the demands of the marketplace, it was time for him to be replaced.

Unlike the Hero Honda venture, where the Munjals and Honda showed complete faith in each other and worked together as a team right from the beginning, the Firodias and Honda reportedly never shared a good rapport. In Hero Honda, the partners had equal stakes and this
made decision-making easier. Moreover; because of lack of competition for a long time, things were easier for Hero Honda. But Kinetic Honda had to compete with a giant like Bajaj. Also, while the cost of making the Kinetic scooter was higher than the cost of manufacturing a motorcycle, the selling price of the latter was Rs 10,000 more. The profitability of Hero the Munjals could take their more and they could afford to spend more on advertising. Also, have done the same, it would definitely have

Henda's exit raised questions about Kinetic's survival. It was thought that the Rs 35 crore the Firodias paid for acquiring the entire stake would put a great strain on their finances and weaken the company. Analysts were quick to comment that Kinetic would have problems regaiding the development and induction of new products. Honda's technical support limited to the existing range of products. And as the existing products - Kinetic Honda and Marvel were not doing very well at that time, the withdrawal was seen as an unwelcome development.

## Survivor

Firodia denied that the dropping of the Honda tag from its scooters would affect the sales. The company introduced tough measures to facilitate improvements on various fronts including input costs, asset management and inventory management. Kinetic realized that gaining customer and dealer confidence would be a key task if it wanted to survive without Honda. Kinetic toid its dealers about its product plans for 1999-2001 and tried to convey to them that now on they would be selling not just Kinetic Honda scooters, but promoting the umbrella 'Kinetic' brand. This meant that they would also be selling mopeds and motorcycles. This in turn, meant higher volumes and, thus, higher profits in the coming years. Kinetic conducted training programs for its dealers to help them deal with customers in a better manner. On the distribution front, Kinetic gave its dealers full range or 'pavilion' dealership. A new Kinetic logo was adopted to give the company a new corporate identity.
However, after the breakup, Firodia's immediate strategy was to push up sales by getting the group's auto-finance companies - Kinetic Leasing \& Finance Ltd. (KJJFL), Kinetic Fincap and Kinetic Capital Finance (later merged with Kinetic Fincap) - to offer attractive finance schemes. Those finance companies were strategically located to service the three biggest markets for two-wheelers in India - north, west, and south. They offered a wide range of finance schemes (termed as Wonder Loans) to suit various customer needs. The move paid rich dividends as sales picked up considerably. Kinetic Fincap and Kinetic Leasing \& Fincap contributed $2.0 \%$ of Kinetic Honda's sales in 1999.

Kinetic called dealer meetings in all regions of the country to assure them of the company's strong prospects even after Honda's departure, which had a very positive feedback. Kinetic also stepped up promotion of the Kinetic brand, using both television and newspaper ad campaigns. A considerable amount was spent on an image-building campaign for the group. Adspend was increased from Rs. 12 crore in 1997-98 to Rs. 20 crore in 1998-99. A new public
awareness campaign on road safety was launched. The company set up a direct sales division as well, which had 50 teams of people going from shop to shop and door to door, informing people about the company's products and the finance schemes offered. The responise was overwhelming and around $12 \%$ of the sales came from this division in 1999. A survey conducted across nine cities showed that Kinetic had maintained its hold, despite Honda's
exit.

On the customer front, Kinetic launched a new, aggressive and consumer-focussed marketing strategy, with the new motto 'Closer to You.' The group launched 'Kinetic Care,' a package of post-sale and post-warranty benefits for the consumers. Several 'Kinetic Mileage Advantage' service camps were held across the country where more than 25,000 scooters were tuned for optimal mileage free of cost. Scooter service campaigns were organized, where spares and lubricants were offered at a discount and labor charges for replacing these spares were waived. For popularizing the K4-100, 'Customer Satisfaction' camps were organized across the country. These were attended by over 18,000 customers, who got free spare parts even
though the warranty
the
warranty period had
lapsed.
Kinetic's moves on the operations front, included opening of more depots around the country and a change in the credit policy. The Honda stake came with Rs. $400-500$ million as outstanding with dealers. Once these were recovered, interest costs came down considerably. Kinetic decentralized the distribution network and thus reduced inventory costs. Kinetic Engineering already had $20 \mathrm{C} \& F$ agents across the country. Kinetic used these agents to extend its reach to semi-urban and rural areas. For example, Kinetic was able to reach places like Anand and Gandhinagar from a depot in Ahmedabad within 24 hours. From its Pitampur plant, this would have taken almost three days. Kinetic also approached banks and negotiated deals to reduce its cost of borrowings. Material costs were reduced by reducing unnecessary imports. To improve the mileage of its scooters, Kinetic consulted experts from around the world and introduced a new technology in its new series of scooters, raising the mileage from 30 kmpl
to
50 kmpl .
All these efforts soon translated into improved performance, proving the company's detractors wrong. Kinetic posted good results for buth KEL (sales rose by 20\%) and KMCL (sales rose by $23 \%$ ) for the first half of 1999 . KMCL also wiped off the previous year's loss of Rs 6 crore and posted profits of Rs 3.69 crore for the same period. In fiscal 2000, sales increased by around $25 \%$.

## Return of the Prodigal

In August 1999, Honda announced that it was setting up a wholly-owned subsidiary to manufacture scooters in India with an initial capacity of one lakh units per year. The company set up an independent distribution network for the new venture. Through this $\$ 43$ million subsidiary, Honda planned to focus on scooters for a period of five years. Later, Hero Honda and the Honda subsidiary were to be free to expand the range to include all two/three wheelers. Honda's first scooter model was launched in mid-2001. Around one-third of the total proposed outlay of Rs 150 crore had already been invested by that time. Though the contract with the Firodias prevented Honda from manufacturing the
same scooter through a subsidiary or a joint venture, Honda got around the clause by introducing scooters in a different range. A Honda official said, "'ihis is an extremely important market for us and there is no question of giving up the scooter business - we never give up."
Honda's decision sparked off debates in industry circles over guidelines regarding foreign companies being allowed to set up wholly owned subsidiaries in India, when they already had joint ventures here. The Confederation of Indian Industry (CII) expressed fears that this could develop into a trend that would adversely afect the local partners in these joint ventures.

Kinetic claimed they were not perturbed by Honda's announcement, as the group believed they were the de-facto leaders in ungeared scooters. Also, they had the exclusive rights to manufacture the 100 cc and 110 cc, Marvel, DX and ZX scooters. The Firodias were not really surprised by Honda's announcement, because at the time Honda was negotiating with them for the Kinetic Hunda stake, such a possibility had been discussed. However, many felt that Honda could eventualiy enter the motorcycle segment as well - something which seemed strategically wrong given the success of the Hero Honda venture. Sulajja said, "If Horida was serious about its scooter business in India and wanted to grow in the market by introducing new models, then why did they not do so during the 12 years that it was present in India, through its JV with us? After all, it had a majority stake and full management control. Yes, its true that Honda has said that it will start by manufacturing a 4 -stroke scooter first through the new company. But what one fails to understand is why Honda should reenter a business by setting up a greenfield project at a whopping investment of cver Rs. 200 crore, when it has barely 10 months ago exited that market, unless it has a larger gameplan of manufacturing motorcycles too."

When we tally about the core competencies of kinetic Honda are: One of their core competencies was their expertise in scooter manufacturing. They had the knowledge and skills to design and produce reliable and efficient scooters, with the kinetic Honda models being a prime example. This allowed them to create products that appealed to customers and stood out in the market. Another core competency was their ability, to build and maintain partnerships. The gereement theirs had with Honda, where they acquired Honda's stake and continued to receive technical support, demonstrated their skill in managing relationships and securing valuable resources. This partnership enabled them to levergoe Honda's expertise and maintain the quality of their products. Overall, kinetic Honda's core competencies in Scooter manufacturing, relationship management, and adaptability played a crucial role in their success and allowed them to thrive in the competitive market.

The breakup between kinetic Honda and the Firodias. So, after the rumors of split started circulating, both Honda and the firodias denied it, but there were
$\Rightarrow$ reports suggesting that the firodias were raising funds to buy out Honda's. Stake. It seems like trouble had been brewing since kinetic Honda recorded a loss in the first quarter of 1998. To address the situation. Honda called Arun firodia to Japan in December 1998. Then presented firodia with an (Offer; either he buys their $51 \%$ stake or Honda
buys out his 19\% stake. It must have been a tough decision for firodia, considering his long association with the company. As part of the agreement, Kinetic Honda would continue manufacturing and selling their existing models, and Hohd a would provide technical support in exchange for rovalitu and fees.

The efficiencies of the company is its hard to son for certain about the efficiencies of the company during the breakup between kinetic Honda and the firodias. However, it's worth noting that kinetic Honda did record a loss in 19981, which might indicate some challenges the were pacing at that time. On the other Hand, Honda is known as one of the world's biggest shooter manufacturing, scooter manufacturers, so then likely have their own set of efficient practices. Overall, its complex situation and would require more detailed analysis to determine the efficiencies of the company During that period.

## Projects Based On Lab Experiments

Students studying Life Sciences at Undergraduate and Postgraduate levels do projects based on different Lab Experiments. They also learn from different programs conducted in the Institution.

## SAROJINI NAIDU VANITA MAHAVIDYALAYA

(Sponsored and managed jointly by Osmania Graduate's Association and Exhibition Society)

## CERTIFICATE

This is to certify miss VEMMULA USHA MADHURI is a bonafide student of this college with the Hall ticket Number 1175-20-526-012. She worked on the project entitled "A STUDY ON COMPARATIVE EFFECT OF METHANOLIC EXTRACT OF FERULA ASAFOETIDA AND AZITHROMYCIN ON LACTOBACILLUS BACTERIA" under the guidance of DR.MANJULA M REDDY, Lecturer(PG) Department of Zoology of this college during 2021-2022.

## Place: Hyderabad



Date: 24.9 .2022

## CERTIFICATE BY THE GUIDE

This is to certify that VEMMULA USHA MADHURI bearing Roll no. 1175-20-526-012 has carried out the project work entitled "A STUDY ON COMPARATIVE EFFECT OF METHANOLIC EXTRACT OF FERULA ASAFOETIDA AND AZITHROMYCIN ON LACTOBACILLUS BACTERIA" under my guidance. This work is original and has not been submitted either in a part or full for the award of any other degree or diploma in other universities. I hereby recommend the submission of the project for the award of M.Sc. degree in Zoology.

Place: Hyderabad
Date: $24.9 \cdot 2022$


DR. MANJULA M REDD
Lecturer(PG) Department of Zoology

## DECLARATION

The project work entitled "A STUDY ON COMPARATIVE EFFECT OF METHANOLIC EXTRACT OF FERULA ASAFOETIDA AND AZITHROMYCIN ON LACTOBACILLUS BACTERIA" is being submitted to Osmania University, Hyderabad, in partial fulfilment for award of Master of Science in Zoology, under the guidance of DR. MANJULA M REDDY, lecturer(PG) Department of Zoology. This work has been carried out by me is original and has not been submitted in part or full for any other degree or diploma to this or any other university.

Place: Hyderabad
Date: 24.9.2022


Hall ticket no:1175-20-526-012

## CERTIFICATE BY THE GUIDE

This is to certify that the project work titled "TO STUDY THE EFFECT OF VANADIUM ON OXIDATIVE STRESS IN CRAB" is the work done by SHAISTA SHAFEIN bearing the Hall ticket no. 1175-21-526-009 of SAROJINI NAIDU VANITA MAHA VIDYALAYA COLLEGE under my supervision

Place: Hyderabad
Lecturer (PG) Department of Zoology
Date: $08(08(2023)$
S.N.V.M.V.

## SAROJINI NAIDU VANITHA MAHAVIDYALAYA

(SPONSORED \& MANAGED JOINTLY BY OSMANIA GRADUATE'S ASSOCIATION \& EXHIBITION SOCIETY)

## CERTIFICATE

This is to certify MISS.MAHVEEN JAHAN is a Bonafide Student of this college with hall ticket No. 1175-21-526-012 \& she worked on the project titled "Ig-E MEDITATED FOOD ALLERGY AND ITS RESPONSE" Under the supervision of DR. C.MANJUSHA of this college during the year 2022-23.

PLACE : HYDERABAD.
DATE : 8-8-2023


PRINCIPAL
Sarojini Naidu Vanita Maha Vidyalaya
Exhibition Grounds, Hyderabad-500 001

## SAROJINI NAIDU VANITA MAMA VIDYALAYA

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## CERTIFICATE

This is to certify THAKUR NAVYA SINGH, VAISHNAVI MAKADIA, VARSHA SHARMA, YADAV KUSHI, YADAV REKHA is a Bonafide student of this college with Hall Ticket No. 1175-20-401-056, 1175-20-401057, 1175-20-401-058, 1175-20-401-059, 1175-20-401-060 and she worked on the project titled "A STUDY ON COSUUMER PREFERNCE TOWARDS COSMETIC BRANDS" under the supervision of MS. THAKUR NEHA lecturer of this college during the year 2022-2023.


HEAD OF DEPARTMENT


EXAMINER
 program \& competitions on "SNAKRS -our friends or Foes". organized by Department of

SAROJINI NAIDU VANITA MAMA VIDYALAYA

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Department of Zoology is organizing
Two Day Inter Collegiate Awareness Program On SNAKES - Our Friends or Foes Myths \& Facts
Register through link https://forms.gle/k7uchpXAsfAR6pCx6

No Registration Fee E-certificate will be provided For further details contact:

Dr. Srivani Sesham Ph: 9885668195

Dr, Srivani Sesham
Dr, D. Shobhana Head, Dept of Zoology Principal

In order to bring awareness among students following competitions will be conducted on 1: March 2021

Competitions - 1st March 2021

1. Poster Presentation Topic: Rare Snake Species
$\qquad$
2. Write Your Name, College, Class mobile number
3. Time 10.00 AM to $11: 00 \mathrm{AM}$
4. Team should not exceed more than 2 participants
5. Powerpoint Presentation

Topic: Role of Snakes in Environment
Guidelines \& Rules tor Portisingonts

1. Presentation should not exceed 5 Minutes of time
2. Time 1000 AM to 11 :00 AM
3. Team should not exceed more than 2 participants


Snake Show
ind March 2021 At moo AM
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Organising Faculty members
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Z show@ SNVMV organised by department of Zoology







