## Lecture 1 <br> PAPER-OM-3 <br> (Database Management System (DBMS)

(MS Access):-

## WHAT IS DATABASE:-

It is collection of well-organized related records in coherent manner. These records stored in the form of table. It consists of rows and columns. Rows are known as tuples and columns are known as attributes.
Example:-Employee records, Students records, telephone Directory, Inventory control, Patients records, etc.
EMP (Table):-

| Eno | Ename | Job | Sal | Deptno |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 0 1}$ | Ajay | Steno | $\mathbf{1 2 0 0 0}$ | $\mathbf{1 0}$ |
| $\mathbf{1 0 2}$ | Vijay | Manager | 22000 | $\mathbf{2 0}$ |
| 103 | Mukesh | Clerk | $\mathbf{1 0 0 0 0}$ | $\mathbf{1 0}$ |

Eno, Ename, Job, Sal, Deptno $\longrightarrow \begin{gathered}\text { Fields Name/Attributes } \\ \text { Name/Column Name }\end{gathered}$
Number of Attributes=5
Number of Tuples $=3$
Cardinality of EMP table=3
Degree/Arity of EMP=5
DBMS:-It is an efficient system/Software by which we manage database.
Example:-MS Access, Oracle, SQL Server, DB-2, Ingress, FoxPro etc.
Functions of DBMS:-
$\checkmark \quad$ Creation of New database.
$\checkmark \quad$ Deletion of existing database.
$\checkmark \quad$ Renaming database.
$\checkmark \quad$ Updating database.
$\checkmark \quad$ Searching of records.
$\checkmark \quad$ Sorting of records.
$\checkmark \quad$ Indexing of records.
$\checkmark \quad$ Creation of View (Logical table).
$\checkmark \quad$ Performing efficient query on database.
$\checkmark \quad$ Applying constraints (validation rules) on database.
Etc.
Three View of Data:-

1. Logical View.
2. Conceptual View.
3. Internal View.

Logical View:-
EMP (Table)
Eno
Ename
Job
Sal
Deptno
Date_Of_Join
Address
Age

## Conceptual View:-

EMP (Table)

Eno
Ename
Job
Sal
Deptno
Date_Of_Join
Address
Age

## Number.

Text.
Text.
Currency.
Number.
Date.
Text.
Number

## Internal View:-

EMP (Table)
Eno
Ename
Job
Sal
Deptno
Date_Of_Join
Address
Age
Number. 14
Text. 25
Text. 18
Currency. 20
Number. 10
Date. 8(Fixed Value)
Text. 35
Number 5

## Three Level Architecture Proposals for a DBMS:-

1. External level(Defined By User).
2. Conceptual Level/Global Level(Defined DBA).
3. Internal Level(DBA defined for optimization).


## Types of DBMS USERS:-

1. Naïve Users.
2. Online Users.
3. Applications Programmers.
4. Database Administrators(DBA).

## Naïve users:-

Users who need not be aware of the presence of the database system or any other system supporting their usage are considered naïve users.

## Online user:-

These are users who may communicate with the database directly via an online terminal or indirectly via a user interface application programs.These Users Are Aware Of The Presence Of Database System and may have acquired a certain amount of expertise in the limited interaction they are permitted with the database thought the intermediately of the application program.

## Application Programmers:-

Professionals programmers who are responsible for the developing application programs or users interfaces utilized by the naïve and online users fall into this category.

## DBA:-

A person or group of persons under the supervision of high-level administrator experts centralized control of the database. This person or group of person is referred to as the DBA.


How To access Data from database:-


## Advantages of DBMS:-

1. Centralized Control.
2. Data independence allows dynamic changes and growth potential.
3. Data quality enhanced.
4. Security enforcement possible.

## Disadvantages of DBMS:-

1. Problems associated with centralization.
2. Cost of Software/Hardware and migration.
3. Complexity of backup and recovery.

## Concept of E-R model (Entity -Relationship) model:-

The entity-relationship model (or ER model) is a way of graphically representing the logical relationships of entities (or objects) in order to create a database.

## Entity:-

It is an object, which is distinguishable from other object.
Example:-
Enrollment=02181050001.
SB A/c number=234567.
Passport Number=AB968754.

## Entity Set:-

Collection of entity is called entity set.
$\checkmark$ Employee records table.
$\checkmark$ Students records table.

## Relationship (Mapping):-

Relations between attributes of two entity sets is called mapping.
There are following types of relationships.

1. 1:1(One: One) Mapping.
2. 1: M (One: Many) Mapping.
3. M: 1 (Many: One) Mapping.
4. M: N (Many: Many) Mapping.

Example:-

> 1:1(One: One) Mapping


ॐ Relationship between Enrollment number and Student.
ॐ Relationship between Passport number and Person.

Example:-
1: M (One: Many) Mapping.


A
B
Relationship between Manager and Employee.


M: 1 (Many: One) Mapping.
Example:-
Relationships between Students and Teacher.
Relationships between Vice Chancellor and Chancellor.


Example:-


## Symbols Used In E-R Model:-

Entity Sets


Link


Example of E-R Model:-

## Employee- Department



Concept of Abstraction, generalization, Specilization and Aggregation:-Abstraction:-

It is simplification mechanism used to superfluous details of a set of objects; it allows concentrating on the properties that are interest to the application.
Example:-Car is an abstraction of a personal transportation vehicle.

## Generalization:-

It is the abstracting process of viewing sets of objects as a single general class. by concentrating on the general characteristics of the constituents sets suppressing or ignoring their differences.


## Specialization:-

It is the abstracting process of introducing new characteristics to an existing class of objects to create one or more new classes of objects.

## Aggregation:-

It is the process of compiling information on an object, thereby abstracting a higher-level object.

Example:-


## MS Access: (Extension name .mdb)

## Data Types:-

1. Text (It accept characters and Numbers both size 0 to 255 characters)
2. Memo(For Large Amount Of text 0 to 64000 characters)
3. Hyperlink(for Linking and store 64000 characters)
4. OLE(For image)
5. Currency(For monetary Values)
6. Yes $/ \mathrm{No}$ (For Boolean values true and false)
7. Autonumber(For generating automatic number)
8. Number (Accept only numbers)
9. Date/time size 8 characters

## Concept of Constraints (Validation rules/Business Rule):-

1. Primary key(Integrity Rule1)/ Minimum super key
2. Foreign Key/Reference Key(Integrity Rule2)
3. Not Null.
4. Unique Key.
5. Check constraints.
6. Default constraints.

## Primary key:- (Integrity Rule 1)/Minimum super key

Column Value cannot accept null and duplicate values.

Example:-
Enrollment Number
Saving Bank A/c Number
Passport Number
Voter ID card
PAN Card Number
Etc.

Primary key.
Primary Key.
Primary Key.
Primary Key.
Primary Key.

## Foreign Kev/Reference Kev: - (Integrity Rule2)

Column value refered by column of master table (Main Table).There are two tables must be necessary.

Foreign Key/Reference Key


## Not Null:-

It can accept duplicate values but cannot accept null values.

## Unique Key:-

It cannot accept duplicate but can accept null values.

## Check Constraints:-

It accepts only predefined values during definition of tables.
Example:-
Check (city in ("VNS","ALD","Kan",'"Luck",'"Delhi")).

## Default Constraints:-

It may accept predefined default values.
Example:- default sal(7000)

## How To Create Table:-

Example:- Employee Database $\rightarrow$ Emp Table
EMP (Eno, Ename, Job, Sal, deptno, City, Contact).

Column Name Constraints
Eno
Ename
Job
Sal
Deptno
City
Contact

Primary Key
Not null
Not Null
default
not null
Not Null
Unique

Data Types
Number
Text
Text
Currency
number
text
number

## Method 1:-

Creation of table using Design view.

## Method 2:-

Creation of table using Wizard view
It instructs and guide by means of dialogue boxes for creating new table.

## Lecture 2

## Query (Questionnaires on database):-

To access records from database is called query.
There are following three techniques for performing query on database.
$\checkmark \quad$ Access Design View.
$\checkmark$ Wizard.
$\checkmark \quad$ SQL (Structure Query Language).

## Operators used in querv:-

$\checkmark$ Relational operators(>,<,>=,<=,<>)
$\checkmark \quad$ Arithmetical Operators(+,-,*,/)
$\checkmark \quad$ Predicate (and, or, not, like, not like, between, not between, in, not in, any, all, not all).

Aggregate Functions Used in Query:-
$\operatorname{sum}() \max () \min () \quad$ count () avg ()

## Order Types:-

1. Ascending Order.(A-Z).
2. Descending Order.(Z-A).

Wild cards:-

1.     * For all Characters.
2. ? For any one characters.

## SQL Method of Query:-

Select <col1>, <col2>, <col3>... from <table_Name>
Where <Criteria_Expression> group by
<Aggregate_Column_name>
Order by <Column_name> asc|desc;

## Example:-

Consider a table
Emp (empno, ename, job, sal, deptno, city).
1:- To display all employee records.
Select * from emp;
2:- To display empno, ename ,job salary only.
Select empno, ename, job,sal from emp;
3:- To display employee records who is found salary more than 15000.

Select empno, ename, job, Sal from emp where sal>=15000;
4:- To display employee records who is found salary between 10000 and 20000.
Select empno, ename, job, Sal from emp where sal between 10000 and 20000;
5:- To display employee records whose job in clerk, steno, salesman or peon.
Select empno, ename, job, Sal from emp where job in ('clerk','steno','salesman','peon');
6:- To display employee records whose job not exist in clerk, steno, salesman or peon.
Select empno, ename, job, Sal from emp where job not in ('clerk','steno','salesman','peon');

7:- To display employee records whose name begin with character ' S '
Select empno, ename, job, Sal from emp where ename like 'S*';
8:- To display employee records whose first and second are any characters and third must be h.remaining are any characters.

Select empno, ename, job, sal, deptno from emp where ename like '??h*'
9:- To display employee records descending order by name. select * from emp order by ename desc;
10:- To display employee records ascending order by name. select * from emp order by ename asc;

## Example Based on Aggregate Function:-

1:-To display average salary, maximum salary, minimum salary, total Salary and number of records in each department.
select avg(sal) as Average,max(sal) as Maximum, $\mathrm{Min}(\mathrm{Sal})$ as minimum, $\mathrm{Sum}(\mathrm{sal})$ as
Total_Sal,count(*) As Total_records,deptno from emp
group by deptno;
2:-To display average salary, maximum salary, minimum salary, total Salary and number of records in department 10 and 20;
select $\operatorname{avg}($ sal $)$ as Average, $\max (\mathrm{sal})$ as $\operatorname{Maximum}, \operatorname{Min}(\mathrm{Sal})$ as minimum, $\operatorname{Sum}(\mathrm{sal})$ as Total_Sal,count(*) As Total_records,deptno from emp group by deptno having deptno in $(10,20)$;

## Example Based on Nested Query:-

Syntax:-
Select <col1>, <col2>, <col3>... from <table_Name>
Where <col_any>=(select <col_any> from <table_Name>
Where <col_any>=(select <col_any> from <table_Name>
Where <col_any>=(select <col_any> from <table_Name>
Where <col_any>=(select <col_any> from <table_Name>
...))));
1:- To display employee record who is found maximum salary.
Select empno,ename,job,sal,deptno from emp where sal=(select $\max (\mathrm{sal})$ from emp)
2:- To display employee record who is found minimumm salary. Select empno, ename, job, sal, deptno from emp where sal=(select min(sal) from emp)
3:- To display employee record who is found Maximum or minimumm salary.
Select empno, ename, job, sal, deptno from emp where sal= (select max (sal) from emp) or sal=(select min (sal) from emp);
4:- To display employee record who is found second highest salary. Select empno, ename, job, sal, deptno from emp where sal= (select max (sal) from emp where sal<(select max(sal) from emp));
5:- To display employee record who is found second lowest salary.
Select empno, ename, job, sal, deptno from emp where sal= (select min (sal) from emp where sal>(select min(sal) from emp));
6:- To display employee record who is found second highest or second lowest salary. Select empno, ename, job, sal, deptno from emp where sal=(select max(sal) from emp where sal<(select max(sal) from emp)) or sal=(select $\min ($ sal ) from emp where sal>(select min(sal) from emp));
7:- To display employee records whose job is same as job of pankaj.
Select empno, ename, job,sal from emp where job=(select job from emp where ename='pankaj');
8:- To display employee records whose salary more than any "Clerk" and "steno" select empno,ename,job,sal from emp where sal>any(select sal from emp where job in("clerk","steno"))
9:- To display employee records whose salary more than all "Clerk" and "steno" select empno,ename,job,sal from emp where sal>all(select sal from emp where job in("clerk","steno"))

## Lecture 3

## Query Based on Joining:-

To access records more than one table, we join table.There are following categories of joining in MS access.

1. Inner join.
2. Left inner join.
3. Right inner join.

| t1 |  |
| :---: | :---: |
| code1 | Name |
| 101 | Aman |
| 102 | Raman |
| 103 | Rakesh |
| 104 | Suresh |
| 105 | Rajesh |


| t2 |  |
| :---: | :---: |
| code2 | Fname |
| 101 | Mukesh |
| 102 | Madan |
| 103 | Mohan |
| 106 | Anil |
| 107 | Shyam |

Inner Join:-It retrieve common records from table T1 and table T2.
SELECT t1.code1, t1.Name, t2.code2, t2.Fname
FROM t1 INNER JOIN t2 ON t1.code1 = t2.code2;

| Query1 |  |  |  |
| :---: | :---: | :---: | :---: |
| code1 | Name | code2 | Fname |
| 101 | Aman | 101 | Mukesh |
| 102 | Raman | 102 | Madan |
| 103 | Rakesh | 103 | Mohan |

Left Inner Join: - It returns all records from left table ( t 1 ) and return from table t 2 only which map from table t 1 .
SELECT t1.code1, t1.Name, t2.code2, t2.Fname FROM t1 LEFT JOIN t2 ON t1.code1 = t2.code2;

| Query2 |  |  |  |
| :---: | :---: | :---: | :---: |
| code1 | Name | code2 | Fname |
| 101 | Aman | 101 | Mukesh |
| 102 | Raman | 102 | Madan |
| 103 | Rakesh | 103 | Mohan |
| 104 | Suresh |  |  |
| 105 | Rajesh |  |  |

Right Inner Join: - It return all records from right table (t2) and return only those records from table t 1 that map to table t 2 .
SELECT t1.code1, t1.Name, t2.code2, t2.Fname
FROM t1 RIGHT JOIN t2 ON t1.code1 = t2.code2;

| Query3 |  |  |  |
| :---: | :---: | :---: | :--- |
| code1 | Name | code2 | Fname |
| 101 | Aman | 101 | Mukesh |
| 102 | Raman | 102 | Madan |
| 103 | Rakesh | 103 | Mohan |
|  |  | 106 | Anil |
|  |  | 107 | Shyam |

## Lecture 4

## Form:-

A form is a type of a database object that is primarily used to enter or display data in a database. We can also use a form as a switchboard that opens other forms and reports in the database, or as a custom dialog box that accepts user input and carries out an action based on the input.
There are two ways by which we can create form.

1. Design View.
2. Wizard technique.


Reports:-It produces output on hard copy (paper) or soft copy (E -Form).
There are two technique of creating report
$\checkmark$ Design View.
$\checkmark$ Wizard View.

## Reports in MS Access consist of five bands.

$\checkmark$ Report header.
$\checkmark$ Page Header.
$\checkmark$ Detail.
$\checkmark$ Page Footer.
$\checkmark$ Report Footer.

## Pages:-

It is similar to form but its main purpose is to navigating records.
There are two techniques for creating pages.
$\checkmark$ Design View.
$\checkmark$ Wizard View.

## Lecture 5

## NORMALIZATION:-

To reduce redundancy or duplicacy from database is called Normalization technique. It is anomalous behavior of database. There are following technique to reduce or optimize redundancy.
$\checkmark 1$ NF (First Normal Form).(Flat File)
$\checkmark 2$ NF(Second Normal Fom)
$\checkmark 3$ NF(Third Normal Form)
$\checkmark$ BCNF(Boyce code Normal Form)

## Concept of Functional dependency (FD):-

Let A and B be two attribute sets. We say that B is functionally dependent on A if and only if all tuples of B is dependent on Attribute set A.It is denoted by:-

A $\qquad$
It means $B$ is functionally dependent on $A$.

A $\qquad$ B, C.
It means B and C both functionally dependent on A .

## Concept of Decomposition of Relation(Table) Scheme:-

Let R is a relation scheme which consist of Attributes $\mathrm{A}_{1}, \mathrm{~A}_{2}, \mathrm{~A}_{3}, \mathrm{~A}_{4}, \mathrm{~A}_{5} \ldots \mathrm{~A}_{\mathrm{n}}$. we decompose the relation in such manner R1, R2, R3, R4... $\mathrm{R}_{\mathrm{n}}$. Way.

$$
\begin{aligned}
& \int_{i=1}^{n} R i=R \\
& \mathrm{R}_{1} \mathrm{UR}_{2} \mathrm{UR}_{3} \mathrm{UR}_{4} \ldots \mathrm{R}_{\mathrm{n}}=\mathrm{R}
\end{aligned}
$$

## Concept of key and Non-Key:-

Key Attributes
Non Key Attributes

Apply primary key Constraints.
No Apply primary key Constraints

1NF: - In first normal form, all non-key attributes totally dependent on a prime key attribute. Example:-
Student (Enroll, Sname, Fname, Cname, Address)


2NF: - A relation is in 2 NF if it is in 1NF and every non Key Attribute is fully dependent on each candidate key of the relation. All non key attributes dependent on composite key attributes.

## Example:-

Order_Details (Order_no, Item_Code, Order_Date, Qty, Price_unit)
(Order_no, Item_Code) Composite Keys.
In Composite, key dependency may be occur.

| Order_no | Item_Code | Order_Date | Qty | Price_unit |
| :--- | :--- | :--- | :--- | :--- |
| 10 | C1 | $19 / 10 / 2015$ | 100 | 10 |
| 10 | C 2 | $19 / 10 / 2015$ | 50 | 40 |
| 20 | C1 | $22 / 10 / 2015$ | 150 | 10 |
| 20 | C 2 | $22 / 10 / 2015$ | 200 | 40 |
| 20 | C3 | $22 / 10 / 2015$ | 75 | 55 |
| 30 | C1 | $27 / 10 / 2015$ | 113 | 10 |
| 30 | C3 | $27 / 10 / 2015$ | 170 | 55 |

R1 (Order_no, Order_Date).
R2(Item_Code, Price_unit).
R3 (Order_no, Item_Code, Qty).
$\mathrm{R}_{1} \mathrm{UR}_{2} \mathrm{UR}_{3}=\mathrm{R}$


A relation R is in third normal form if it is in 2NF and every non key attribute of R is non transitively dependent on each candidate key of R.

Example:-
Student (Enrol, Sname, Cname, Year, Hostal).


| Enrolment | Sname | Cname | Year | Hostal |
| :--- | :--- | :--- | :--- | :--- |
| 1234 | Ajay | MCA | 1 | Narendra_dev |
| 2345 | Vivek | MCA | 2 | Brocha |
| 5432 | Manoj | MBA | 1 | Narendra_dev |
| 6789 | Seema | MCA | 3 | Birala |
| 3421 | Sandeep | BCA | 3 | Birala |
| 7698 | Rohan | BCA | 1 | Narendra_dev |
| 5689 | Pravesh | MBA | 2 | Brocha |
| 9006 | Archana | BCA | 2 | Brocha |

## Duplicacy may occur in year and hostal.

R1 (Year, Hostal).
R2 (Enrol, Sname, Cname, Year).

## BCNF (Boyce Cod Normal Form):-

A relation $R$ is said to be in BCNF if $X \longrightarrow A$ holds in $R$, and $A$ is not in $X$, then $X$ is a candidate key for R.In other words, a relation is in BCNF if it is in 3NF and if every determinant(left hand side of a functional dependency) is a candidate key.

It should be noted that most relations that are in 3NF are also in BCNF.Infrequently a 3 NF relation is not in BCNF and this happen only if,
\% The candidate keys in the relations are composite keys (that is, they are not single attributes).
ऊ There is more than one candidate key in the relation.
$3^{\circ}$ The keys are not disjoint, That is, some attributes in the keys are common.
Example:-
Consider a relation scheme

## Professor (Professor_Code, Dept, H_O_D, Percent_Time).

It is assumed that

1. A professor can work in more than one department.
2. The percentage of the time he spends in each department is given.
3. Each department has only one head of department.


## Normal Form:-

R(Professor)

| Professor_Code | Department | H_O_D | Percent_time |
| :--- | :--- | :--- | :--- |
| P1 | Physics | Ghosh | 50 |
| P1 | Mathematics | Krishnan | 50 |
| P2 | Chemistry | Rao | 25 |
| P2 | Physics | Ghosh | 75 |
| P3 | Mathematics | Krishnan | 100 |
| P3 | Physics | Ghosh | 30 |
| P2 | Biology | Raghav | 30 |

R1

| Professor_Code | Department | Percent_time |
| :---: | :--- | :---: |
| P1 | Physics | 50 |
| P1 | Mathematics | 50 |
| P2 | Chemistry | 25 |
| P2 | Physics | 75 |
| P3 | Mathematics | 100 |
| P3 | Physics | 30 |
| P2 | Biology | 30 |

R2

| Department | H_O_D $_{-}$ |
| :---: | :---: |
| Physics | Ghosh |
| Mathematics | Krishnan |
| Chemistry | Rao |
| Biology | Raghav |

## Properties of Normalized relations:-

1. No data value should be duplicated in different rows unnecessarily.
2. A value must be specified attribute in a row.
3. Each relation should be self-contained.
4. When a row is added to a relation, other relations in the database should not be affected.
5. A value of an attribute in a tuple may be changed independent of other tuples in the relation and other relations.

## Different Types of Anomalies in database:-

1. Redundancy (Duplicacy).
2. Update anomalies.
3. Insertion anomalies.
4. Deletion anomalies.

Note:-
Normalization technique should be common sense.

# Paper:-OM 4 <br> (Web Page Designing and Internet) <br> <br> Lecture 1 

 <br> <br> Lecture 1}

## HTML: - (Hyper Text Mark Up Language)

It is a hypertext Markup language, which is used for designing web page. That display on web browser such as internet explorer, Mozila, Netcruisier, Mosaic, Chimera, Celo and Netscape navigator,Opera,Saffari,googlechrome etc.
Html file must be saving with extensition name .htm or .html.Coding write into notepad.Html coding based on Tag. There are two types of tags.

Open Tag
Closed Tag
<>
</>

## Format of HTML Coding:-

<html>
<Head>...</Head> Pair Tag
<Title>...</title>
<Body>
....
...
</body>
</html>

## Properties/Attributes of Body:-

bgcolor="Color_name or Color_Code".
background="image file with extension name .jpg or .gif or .bmp".
Text=" Color_name or Color_Code".
Size="Values in Pixels (Picture Elements)"

## Header tag:-

<h1>...</h1> The Largest Size.
<h2>...</h2>
<h3>...</h3>
<h4>...</h4>
<h5>...</h5>
<h6>...</h6> The Smallest Size.

## Paragraph Tag:-

<p>...</p>
Example:-
<p>This is a paragraph.</p>
$\langle\mathrm{p}\rangle$ This is another paragraph.</p>
Center Tag:-
<Center>...</Center>
Font formatting tag:-

| <b> $></ \mathrm{b}>$ | For Bold |
| :--- | :--- |
| <i> $></ \mathrm{i}>$ | For Italic |
| <u> $></ \mathrm{u}>$ | For Underline |
| <Sup> $></$ sup> | For Superscript |
| <Sub> $></$ sub> | For Subscript |
| <Strike> $><$ Strike> | For Strikeout |

## Font tag:-

<Font>...</font>
Attribute:-

1) color=" Color_name or Color_Code".
2) size="Values in Pixels (Picture Elements)"
3) align="left|right|center"

## Line Tag:-

<hr>

## Attribute:-

size=" Values in Pixels (Picture Elements)"
width=" Values in Pixels or \%"
Color= "Color_name or Color_Code"
Marquee Tag:-( It is used for moving objects).
<Marquee>...</marquee>.
Attribute:-
Bgcolor= "Color_name or Color_Code".
direction="left|right|up|down".
behavior="alternate or slide".
scrolldelay=" Values in Pixels "
scrollamount="Values in Pixels"

## Break row Tag:-

<br>

## Lecture 2

## Inline Image tag:-

<img src="image file with extension name .jpg or .gif or .bmp">
<img src="w3schools.jpg" alt="W3Schools.com" width="104"height="142">
Attribute:-
width="Size in pixels or \%".
height="Size in pixels or \%".
border="Values in Pixels".
vspace="Size in pixels or $\%$ ".
hspace="Size in pixels or \%".
align="left|right|center".

## Anchor tag:-

The anchor tag is used to create links between different objects like HTML page files, web site (URL $\rightarrow$ Uniform/Universal Resource Locator).
<a href="HTML page files or URL"> Text or Graphics</a>
Example:-


## File web1.html

<html>
<head><center><h1><font color="red">ICSM</font ></h1></center></head> <title>VNS</title>
<body bgcolor="pink">
```
<HR SIZE="10" COLOR="BLUE">
<p><center>MERA BHARAT MAHAN</center></p>
<HR SIZE="10" COLOR="SILVER">
<center>
<a href="C:\Documents and Settingslanand\My
Documents\WEB\WEB2.HTM"><b><h2>NEXT</h2></b></a>
<a href="C:\Documents and Settings\anand\My
Documents\WEB\WEB3.HTM"><b><h2>LAST</h2></b></a>
</center>
</body>
</html>
File web2.htm

```
<html>
<head><center><h1><font color="red">BHU</font ></h1></center></head>
<title>VNS</title>
<body bgcolor="OCEAN">
<HR SIZE="10" COLOR="BLUE">
<p><center>WORK IS WORSHIP</center></p>
<HR SIZE="10" COLOR="SELVER">
<center>
<a href="C:LDocuments and Settingslanand\My
Documents\WEB\WEB3.HTM"><b><h2>NEXT</h2></b></a>
<a href="C:\Documents and Settingslanand\My
Documents|WEB\WEB1.HTM1"><b><h2>BACK</h2></b></a>
</center>
</body>
</html>
File web3.htm
<html>
<head><center><h1><font color="red">UPRTOU</font ></h1></center></head>
<title>VNS</title>
<body bgcolor="ORANGE">
<HR SIZE="10" COLOR="GRAY">
<p><center>INDIA IS THE GREAT COUNTRY</center></p>
<HR SIZE="10" COLOR="SILVER">
<center>
<a href="C:\Documents and Settingslanand\My
Documents|WEB\WEB2.HTM"><b><h2>BACK</h2></b></a>
<a href="C:\Documents and Settingslanand\My
Documents|WEB\WEB1.HTML"><b><h2>FIRST</h2></b></a>
</center>
</body>
</html>

\section*{Linking with image in place of text:-}
<a href="C:\Documents and Settingslanand\My DocumentsIWEB\WEB3.HTM"><img src="D:\GOD\7.jpg" height="50" width="50"></a>
<a href="C:\Documents and Settingslanand\My Documents\WEBIWEB1.HTML"><img src="D:\GOD\11.jpg" height="50" width="50"></a>

\section*{In Line Video Tag:-}
<img dynsrc=" video file with path and extension name">

\section*{Attribute of Inline Video:-}

Height="Values in Pixels or \%"
Width="Values in Pixels or \%"
Loop=-1 or "infinite"
start="mouseover"

\section*{Example:-}
<html>
<Head><center><h1><font color="red">ICSM</font></h1></center></head>
<title>VNS</title>
<body bgcolor="pink">
<HR SIZE="10" COLOR="BLUE">
<center><img dynsrc="F:IMPEGAV1\kk.dat" height="300" width="300"
start="mouseover"></center>
</body>
</html>

\section*{Background sound Tag:-}
<bgsound src=" audio file with path and extension name">

\section*{Attribute of Sound:-}

> Loop=-1 or "infinite"

\section*{Example:-}
<Html>
<Head><center><h1><font color="red">ICSM</font ></h1></center></head>
<Title>VNS</title>
<body bgcolor="pink">
<HR SIZE="10" COLOR="BLUE">
<Center><bgsound src="F:\SONG\02 Bhala Kisi Ka Karna Sako Tolsg2.mp3" loop=-1></center>
</body>
</html>

\section*{Lecture 3}

\section*{Table tag:-}
<Table>
<tr><th>Heading1</th><th>Heading2</th>...</tr>
<tr><td>Value1</td><td>Value2</td>...</tr>
...
...
</table>

\section*{Attribute Of Table:-}
\[
\begin{array}{ll}
\hline \text { bgcolor="color_Name" or "Color_code" } \\
\text { background="image file with path and extension name" } \\
\text { cellpadding="values in pixels" } \\
\text { cellspacing=" values in pixels" } \\
\text { border="Values in Pixels"s }
\end{array}
\]
```

Example:-
<Html>
<Head><center><h1>Employee Records</h1></center></head>
<Title>ICSM</title>

<body bgcolor="green">
<table bgcolor="gold" border="10" cellspacing="20" cellpadding="25">
<tr><th>Eno</th><th>Ename</th><th>Job</th></tr>
<tr><td>101</td><td>Ajeet</td><td>Steno</td></tr>
<tr><td>102</td><td>Arpita</td><td>Clerk</td></tr>
```
</table>
</body>
</html>

## List tag:-

It is used for displaying items either ordered or unordered form.
There are Three types of list tags.

* Unordered Lists.
* Ordered List.
* Definition List.
<li>....</li>
Unordered List:-
<ul>
<li>....</li>
<li>....</li>
...
...
</ul>
Attributes:-
type="circle|disc|rectangle"


## Example:-

<Html>
<Head><center><h1>Courses of ICSM</h1></center></head>
<title>ICSM</title>

<body bgcolor="green">
<ul type="disc">
<Caption><b>Computer Courses</b></Caption>
<li>MCA</li>
<li>BCA</li>
<li>PGDCA</li>
</ul>
</body>
</html>

## Ordered List:-

<ol>
<li>....</li>
<li>....</li>
...
...
</ol>
Attributes:-
type $=" 1|\mathrm{~A}| \mathrm{a}|\mathrm{I}| \mathrm{i} "$
start="Start_Number"

## Example:-

< $\mathrm{Html}>$
<Head><center><h1>Courses of ICSM</h1></center></head>
<Title>ICSM</title>

<body bgcolor="green">
<ol type="1" start= "1">
<Caption><b>Computer Course</b></Caption>
<li>MCA</li>
```
<li>BCA</li>
<li>PGDCA</li>
</ol>
</body>
</html>

```

\section*{Definition List:-}
```

<dl>
```
<dl>
<DT>....</DT>
<DT>....</DT>
<dd>...</dd>
<dd>...</dd>
...
...
...
...
...
...
</dl>
```
</dl>
```

\section*{Example:-}
```

<Html>

<head><center><h1>Definition List</h1></center></head>
<title>ICSM</title>
<body bgcolor="green">
<dl>
<DT><b>What Is DATABASE</b></dt>
<dd>
```
It is well organized collection of related records.That organised into tabular form.Rows are known as
tuples and columns are known as attributes.
</dd>
<DT><b>What Is Computer</b></dt>
<dd>
It is an electronic apparatus making for calculations and controlling operations.And expressed these
result in terms of numerical or logical.
</dd>
</dl>
</body>
</html>
    Frame:-

It is used for dividing browser area into sub area.
<frameset rows="Values in \%">
<frameset cols="Values in \%">
<frame src="HTML file or URL or Image file">
<frame src="HTML file or URL or Image file">
...
...
</frameset>
</frameset>
Note:-

\section*{Body and Head both tags replaced by frameset.}

\section*{Example:-}
<html>
<title>VNS</title>
<frameset rows=" \(50 \%, 50 \%\) ">
<frameset cols="50\%,50\%">
<frame src="C:\Documents and Settingslanand\My DocumentsIWEB\WEB1.HTML">
```
<frame src="D:\GOD\5.jpg">
</frameset>
<frameset cols="50%,50%">
<frame src="C:\Documents and Settingslanand\My Documents\WEB\WEB2.HTM">
<frame src="D:\GOD\6.jpg">
</frameset>
</frameset>
</html>
```

\section*{Lecture 4}

\section*{Forms:-}
```
It facilitates interactivity to our documents by way of the form tags.
<Form>
...
...
</Form>
```

\section*{Form elements:-}
a) <Input>
\(\ldots\)
...
</input>

\section*{Attributes:-}

Type="Button|Textbox|Checkbox|Radio|Password"
Size="Values"
b) <Select>
<Option>Item1</Option>
<Option>Item2</Option>
...
...
</select>

\section*{Attributes:-}

> size="Values"
c) <Textarea rows="values" cols="values">
\[
\begin{aligned}
& \ldots \\
& \cdots
\end{aligned}
\]
</Textarea>
d) <Button>
</Button>
e) <Iframe src="URL|HTML File||Image File" height="Values" width="Values">
f) <label>.... </label>
g) \(\quad \& n b s p ; \rightarrow \quad\) it is used for provide single space.
\begin{tabular}{|c|c|c|}
\hline Color code:- & Color Name & Hexatriplet Color Code \\
\hline & ALICEBLUE & \#F0F8FF \\
\hline & AQUA & \#00FFFF \\
\hline & AZURE & \#F0FFFF \\
\hline & BISQUE & \#FFE4C4 \\
\hline & BLUEVIOLET & \#8A2BE2 \\
\hline & CORAL & \#FF7F50 \\
\hline & CYAN & \#00FFFF \\
\hline & DEEPPINK & \#FF1493 \\
\hline & DIMGRAY & \#696969 \\
\hline & FORESTGREEN & \#228B22 \\
\hline & GOLD & \#FFD700 \\
\hline & GRAY & \#808080 \\
\hline & BLACK & \#000000 \\
\hline & BLUE & \#0000FF \\
\hline & BROWN & \#A52A2A \\
\hline & CHOCOLATE & \#D2691E \\
\hline & CRIMSON & \#DC143C \\
\hline & DARKGREEN & \#006400 \\
\hline & GREEN & \#008000 \\
\hline & GREENYELLOW & \#ADFF2F \\
\hline & INDIGO & \#4B0082 \\
\hline & KHAKI & \#F0E68C \\
\hline & LIGHTGRAY & \#D3D3D3 \\
\hline & LIME & \#00FF00 \\
\hline & LINEN & \#FAF0E6 \\
\hline & MAROON & \#800000 \\
\hline & IVORY & \#FFFFF0 \\
\hline & MAGENTA & \#FF00FF \\
\hline & NAVY & \#000080 \\
\hline & OLIVE & \#808000 \\
\hline & ORANGE & \#FFA500 \\
\hline & ORCHID & \#DA70D6 \\
\hline & PERU & \#CD853F \\
\hline & PLUM & \#DDA0DD \\
\hline & PURPLE & \#800080 \\
\hline & ROSYBROWN & \#BC8F8F \\
\hline & SANDYBROWN & \#F4A460 \\
\hline & SILVER & \#C0C0C0 \\
\hline & SLATEBLUE & \#4682B4 \\
\hline & SNOW & \#FFFAFA \\
\hline & TOMATO & \#FF6347 \\
\hline & VIOLET & \#EE82EE \\
\hline & WHITE & \#FFFFFF \\
\hline & YELLOW & \#FFFF00 \\
\hline & PINK & \#FFC0CB \\
\hline & RED & \#FF0000 \\
\hline & ROYALBLUE & \#4169E1 \\
\hline & SEAGREEN & \#2E8B57 \\
\hline & SIENNA & \#A0522D \\
\hline & SKYBLUE & \#87CEEB \\
\hline & WHEAT & \#F5DEB3 \\
\hline & WHITESMOKE & \#F5F5F5 \\
\hline & YELLOWGREEN & \#9ACD32 \\
\hline
\end{tabular}
```
    Example:-
<Html>
<Head><center><h1>ADMISSION FORM</h1></center></head>
<Title>VNS</title>
<body bgcolor="#ffff00">
<Form>
<Label>Enter SName</Label>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="textbox"
size="15">
<br>
<br>
<Label>Enter FName</Label>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input
type="textbox" size="15">
<br>
<br>
<Label>Enter Password</Label>&nbsp;&nbsp;&nbsp;&nbsp;<input type="password" size="15">
<br>
<br>
<label>Select Your Course</label>
<select>
<option>MCA</option>
<option>MBA</option>
<option>BBA</option>
<option>PGDCA</option>
</select>
<br>
<br>
<label>Select Academic Qualification</label>
<br>
<br>
Graduate&nbsp;&nbsp;
<input type="checkbox">&nbsp;&nbspPG&nbsp;&nbsp<input type="checkbox" >
&nbsp;&nbspPhd&nbsp;&nbsp<input type="checkbox">
</form>
</body>
</html>
Example 2:-
<Html>
<Head><center><h1>ADMISSION FORM</h1></center></head>
<Title>VNS</title>
<body bgcolor="#ffff00">
<Form>
<Label>Enter SName</Label>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="textbox"
size="15">
<br>
<br>
<label>Address of Candidate</label>
<br>
<br>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;
<textarea rows="5" cols="10">
Type Your address
</textarea>
<br>
<br>
<Button>Ok</button><Button>Cancel</button><Button>Help</Button>
```
</form>
</body>
</html>
Example:-3
<Html>
<Head><center><h1>ADMISSION FORM</h1></center></head>
<Title>VNS</title>
<body bgcolor="\#ffff00">
<iframe src="C:\Documents and SettingslandlanMy Documents\WEB\frame.htm" height="50\%"
width=" \(50 \%\) ">
</body>
</html>

\section*{Lecture 5}

\section*{Introduction of Java Script:-}

Java script is the programming language for designing web page in which we can write codes based on logic. It is used mainly for validating forms. JavaScript and Java language can be related to each other.

\section*{Format of JavaScript:-}
< \(\mathrm{Html}>\)
<Head>
<script Language="JavaScript">
....
....
</script>
</Head>
<title>....</title>
<Body>
<script Language="JavaScript">
....
....
....
</script>
</body>
</Html>

\section*{Declaration Of variable:-}
var <variable_name1>,<variable_name2>,<variable_name3>...;
Assigning Value in Variables:-
var <variable_name1>=<value1>, <variable_name2>=<Value2>...;

\section*{Data Types:-}
Number(Only Number)
Boolean(Yes/No)
String("Sequence of characters either numbers or Digits")
Object \(\{\) <Myobject \(>=\) new Object ()\(;\}\)

\section*{Statements and Operators:-}
1. Assignment Operators

Assigning value in variable.
ie \(\mathbf{m}=\mathbf{a}+\mathbf{b}\).
\(+=\quad\) Shortcut for adding to the current value. ie \(\mathbf{m}+=\mathbf{4}\) it means \(\mathbf{m}=\mathbf{m}+4\).
-= \(\quad\) Shortcut for subtracting to the current value. ie \(\mathbf{m}-=\mathbf{3}\) it means \(\mathbf{m}=\mathbf{m} \mathbf{- 3}\).
*= Shortcut for multiplying to the current value. ie \(\mathrm{m} *=5\) it means \(\mathrm{m}=\mathrm{m} * 5\).
\(/=\quad\) Shortcut for dividing to the current value. ie \(\mathrm{m} /=3\) it means \(\mathrm{m}=\mathrm{m} / 3\).
2. Comparison Operators.
- = = Equal Operator.
- ! \(=\quad\) Not Equal.
- > Greater Than.
- < Less Than.
- \(>=\) Greater Than or equal.
- <= Less than or equal.
3. Computational Operators:-
- + Addition
- -
- *
- /
- ++X
- X++
- --X
- X--

Addition
Subtraction
Multiplication
Division
Preincrement
Post increment
PreDecrement
Post Decrement
ie \(\mathrm{m} 1=\mathrm{a}+\mathrm{b}\)
ie \(\mathrm{m} 2=\mathrm{a}-\mathrm{b}\)
ie \(\mathrm{m} 3=\mathrm{a} * \mathrm{~b}\)
ie \(m 4=a / b\)
ie if \(\mathrm{m}=3 \quad\) then \(\mathrm{p}=++\mathrm{m}=4\)
ie if \(\mathrm{m}=4\) then \(\mathrm{p}=++\mathrm{m}+\mathrm{m}++=10\)
ie if \(m=3 \quad\) then \(p=-m=2\)
ie if \(m=4\) then \(p=--m+m--=6\)
4. Logical Operator:-
\begin{tabular}{ll} 
- \&\& & AND operator \\
- \(\|\) & OR Operator \\
- ! & Not Operator
\end{tabular}

\section*{Output Function:-}
document.write ("Format String/Html tags" +list of variables);

\section*{Example:-}
< Html >
<Head>
<script language="JavaScript">
var \(\mathrm{a} 1=12\), \(\mathrm{b} 1=9\), c1, c2;
\(\mathrm{c} 1=\mathrm{a} 1+\mathrm{b} 1\);
c2=a1-b1;
document.write ("<center>");
document.write ("<hr>"+"<br>");
document.write ("Sum="+c1+"<br>");
document.write ("<hr>");
document.write ("Difference="+c2);
document.write ("<hr>");
document.write ("</center>");
</script>
</head>
<body bgcolor="\#ffff00">
<script language="JavaScript">
var \(\mathrm{a} 2=12, \mathrm{~b} 2=9, \mathrm{c} 3, \mathrm{c} 4\);
\(\mathrm{c} 3=\mathrm{a} 2 * \mathrm{~b} 2\);
```
c4=a2/b2;
document.write ("<center>");
document.write("<hr>");
document.write ("<br>"+"Product="+c3+"<br>");
document.write ("<hr>");
document.write("Division="+c4);
document.write("<hr>");
document.write ("</center>");
</script>
</body>
</html>

```

\section*{Example2:-}
< Html >
<Head>
<script language="JavaScript">
</script>
</head>
<body bgcolor="\#ffff00">
<script language="JavaScript">
var \(\mathrm{a} 1=12, \mathrm{~b} 1=9, \mathrm{c} 1, \mathrm{c} 2\);
\(\mathrm{c} 1=++\mathrm{a}\);
c2=--b1;
document.write ("<center>");
document.write ("<hr>");
document.write ("<br>"+"Value of c1="+c1+"<br>");
document.write ("<hr>");
document.write ("Value of c2="+c2);
document.write("<hr>");
document.write ("</center>");
</script>
</body>
</html>

\section*{Example3:-}
```

<Html>

<head>
<script language="JavaScript">
</script>
</head>
<body bgcolor="#ffff00">
<script language="JavaScript">
var a2=12, b2=9;
document.write("<center>");
document.write ("<hr>");
a2+=9;
document.write ("<br>"+"Value of a2="+a2+"<br>");
document.write ("<hr>");
a2-=4;
document.write ("<br>"+"Value of a2="+a2+"<br>");
document.write ("<hr>");
a2*=4;
document.write ("<br>"+"Value of a2="+a2+"<br>");
document.write ("<hr>");
```
b2/=4;
document.write ("<br>"+"Value of a2="+b2+"<br>");
document.write ("<hr>");
document.write ("</center>");
</script>
</body>
</html>

## Functions:-

It is sub program, which is used for performing some well-defined task.
There are following types of functions.
Math Object:-

* Math.abs(x) It Return absolute value.
* Math. $\log (x) \quad$ It Return logarithm value.
* Math.max (a, b) It return the largest value.
* Math.min (a, b) It return the smallest value.
* Math.pow ( $m, n$ ) It return the $m$ to the power $n$.
* Math. sin (x) It return sin value.
* Math.cos (x) It return cos value.
* Math.tan (x) It returns tan value.
* Math.sqrt (x) It return square root value.


## Date Object:-

Syntax:-
var <my_Date>=new Date ( )

## Date Method:-

Date( $) \rightarrow \quad$ It returns a date object
GetDate ()$\quad \rightarrow \quad$ It returns a date of a date object (from 0-6)
$0=$ Sunday.
1=Monday.
2=Tuesday.
3=Wednesday.
4=Thursday.
5=Friday.
6=Saturday.
getDay ( ) It returns the day of a date object.
getMonth ( ) It returns the Month of a date object(0-11).
getFullYear ( ) It returns the Year of a date object.
getHours () It return hours of a date object.
getMinutes ( ) It return minutes of a date object.
getSeconds ( ) It returns seconds of a date object.

## Example:-4

```
<html>
<head>
<script language="javascript">
var a=15,b=4, c1,c2,c3,c4,c5;
c1=Math.sqrt(a);
c2=Math.max(a,b);
c3=Math.min(a,b);
```

```
c4=Math.log(c1);
c5=Math.pow(a,b);
document.write("<hr color=green size=10>");
document.write("<br>"+"Value of c1="+c1+"<br>");
document.write("<br>"+"Value of c2="+c2+"<br>");
document.write ("<br>"+"Value of c3="+c3+"<br>");
document.write ("<br>"+"Value of c4="+c4+"<br>");
document.write ("<br>"+"Value of c5="+c5+"<br>");
document.write ("<hr color=violet size=10>");
</script>
</head>
<body bgcolor="#ffff00">
<script language="javascript">
var dl=new Date();
document.write("<hr color=blue size=10>");
document.write("<br>"+"Current date of The System"+"<br>");
document.write (d1.getDate () +"/");
document.write (d1.getMonth ()+1+"/");
document.write (d1.getFullYear ( ) );
document.write("<hr color=red size=10>");
document.write("<br>"+"Current Time of The System"+"<br>");
document.write(d1.getHours()+":");
document.write(d1.getMinutes()+1+":");
document.write (d1.getSeconds ());
document.write("<hr color=red size=10>");
</script>
</body>
</html>
```


## Lecture 6

## Control Statement:-

Java language provides facilities for controlling the order of execution
of the statements, which is referred to as flow control statements/control statements.
There are following three categories of flow control statements.

1. Decision Control Statement.
a. if <criteria> statement.
b. if-else statement.
c. nested if-else statement.
d. else -if construct statement.
e. switch case statement.
2. Looping Control/Repititive control/Iterative Control Statement.
a. for loop.
b. while loop.
c. do while loop.
3. Jumping control statement.
a. break statement.
b. continue statement.

## a:- if <criteria> statement.

## Example:-1

Write JavaScript code to check number is even or odd.

<html>
```
<head>
<script language="javascript">
var a=32,cl;
c1=a%2;
if(c1==0)
{
document.write("<hr color=violet size=10>");
document.write ("<h1>"+"Even Number="+a+"</h1>");
document.write ("<hr color=blue size=10>");
}
if(c1!=0)
{
document.write("<hr color=ocean size=10>");
document.write("<h1>"+"Odd Number"+a+"</h1>");
}
document.write("<h1>"+"Exit"+"</h1>");
</script>
</head>
<body bgcolor="#ffff00">
<script language="javascript">
</script>
</body>
</html>
```

\section*{Example:-2}

Write JavaScript to check year is Leap or Not.
```

<Html>

<head>
<script language='javascript'>
var year=2013,c1;
c1=year%4;
if(c1==0)
{
document.write("<hr color=violet size=10>");
document.write("<h1>'"+'Leap Year='"+year+"</h1>'');
document.write ("<hr color=blue size=10>");
}
if(c1!=0)
{
document.write ("<hr color=ocean size=10>'');
document.write ("<h1>''+'Not Leap Year''+year+'</h1>');
}
document.write ("<h1>''+'Exit"+'"</h1>'');
</script>
</head>
<body bgcolor='"#fff00'>
<script language='javascript">
</script>
</body>
</html>

```
```

Example:-3
Write JavaScript to display green lines if condition is true and display blue lines if condition is false.
Green lines move from Left to Right and blue lines move from Right to left.
<Html>
<Head><center><h2>Welcome</h2></center>

<script language='javascript">
var n=2;
if(n>=5)
document.write ("<marquee direction =right >" +"<hr color=Green size=10
width=50%>"'+"</marquee>");
else
document.write ("<marquee direction =left >"+"<hr color=blue size=10
width=50%>"+'"</marquee>");
</script>
</head>

<body bgcolor='#ffff00">
<script language='javascript">
</script>
</body>
</html>

```

\section*{Nested If-else Statement:-}
        if<Cond1>
    Statement_block 1;
    else
        if<Cond2>
        Statement_block2;
        else
                        if<Cond3>
                        Statement_block3;
        ....
        ....
        ....
        Exit_Statement;
    Example: - Write a JavaScript to check largest of three numbers.Also display different colors of lines.
<html>
<head><center><h2>Welcome</h2></center>
<script language="JavaScript">
var \(a=100, b=15, c=20\);
if( \(a>b \& \& b>c| | a>c \& \& c>b)\)
document.write ("Number a is the largest="+a);
else
if \((b>c \& \& c>a \| b>a \& \& a>c)\)
document.write ("Number \(b\) is the largest="+b);
else
document.write ("Number c is the largest="+c);
</script>
</head>
<body bgcolor="\#ffff00">
<script language="javascript">
```

</script>
</body>

```
</html>

\section*{else-if-Construct Statement/Ladder Statement:-}

It is used for making choice based problems.
\(\qquad\)
else
if(Condition1)
Statement_Blocks;


\section*{Example:-}
< \(\mathrm{Html}>\)
<Head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="\#ffff00">
<script language="javascript">
var \(\mathrm{a}=12, \mathrm{~b}=17, \mathrm{c} 1, \mathrm{c} 2, \mathrm{c} 3, \mathrm{c} 4, \mathrm{ch}=3\);
document.write ("<center>"+"<h4>"+"ARITHMETIC OPERATION"+"</h4>"+"</center>"+"<br>");
document.write ("<hr>");
document.write ("<h4>"+"1:- SUM"+"</h4>");
document.write ("<hr>"+"<br>");
document.write ("<h4>"+"2:- SUB"+"</h4>");
document.write ("<hr>"+"<br>");
document.write ("<h4>"+"3:- MUL"+"</h4>");
document.write ("<hr>"+"<br>");
document.write ("<h4>"+"4:- DIV"+"</h4>");
document.write ("<hr>"+"<br>");
document.write ("IF CHOICE="+ch);
if(ch==1)
\{
c1=a+b;
document.write ("<br>"+"Sum="+c1);
\}
else
if(ch==2)
\{
c2=a-b;
document.write ("<br>"+"Difference="+c2);
\}
else
if(ch==3)
\{
\(\mathrm{c} 3=\mathrm{a} * \mathrm{~b}\);
document.write ("<br>"+"Product="+c3);
\}
```

else
if(ch==4)
{
c4=a/b;
document.write ("<br>"+"Division="+c4);
}
else
{
document.write ("<hr>");
document.write ("Wrong Choice ");
}
</script>
</body>
</html>

```

\section*{switch-case Statement:-}

It is also used for solving choice based problem. switch (expression)
\{
case <value1> :
Statement 1 ;
break;
case <value2> :
Statement2;
break;
case <value3> :
Statement3;
break;
case <value4> :
Statement4;
break;
default :
Wrong_statement 4 ;
\}

\section*{Exit_Statement;}

\section*{Example:-}
<Html>
<Head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
var \(\mathrm{a}=12, \mathrm{~b}=17, \mathrm{c} 1, \mathrm{c} 2, \mathrm{c} 3, \mathrm{c} 4, \mathrm{ch}=1\);
document.write("<center>"+"<h4>"+"ARITHMETIC OPERATION"+"</h4>"+"</center>"+"<br>"); document.write("<hr>");
document.write("<h4>"+"1:- SUM"+"</h4>");
document.write("<hr>"+"<br>");
document.write("<h4>"+"2:- SUB"+"</h4>");
document.write("<hr>"+"<br>");
document.write("<h4>"+"3:- MUL"+"</h4>");
```

document.write("<hr>"+"<br>");
document.write("<h4>"+"4:- DIV"+"</h4>");
document.write("<hr>"+"<br>");
document.write("IF CHOICE="+ch);
switch(ch)
{
case 1:
{
c1=a+b;
document.write ("<br>"+"Sum="+c1);
}
break;
case 2:
{
c2=a-b;
document.write("<br>"+"Difference="+c2);
}
break;
case 3:
{
c3=a*b;
document.write ("<br>"+"Product="+c3);
}
break;
case 4:
{
c4=a/b;
document.write ("<br>"+"Division="+c4);
}
break;
default :
{
document.write ("<hr>");
document.write ("Wrong Choice ");
}
}
</script>
</body>
</html>

```

\section*{Lecture 7}

\section*{Looping Control/Iterative Control/Repetitive Control Statement:-}

It means execution of statements repeatedly according to true conditions and exit from loop when condition becomes false. There are three kinds of looping control statements.
* for loop.
* while loop.
* do while loop.

\section*{Syntax of for loop:-}
for (initializations; condition; updations)
statement_blocks;
exit_Statements;

\section*{Example:-1}

Write JavaScript code for generating series of natural numbers.
```

<html>
<head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="#dcdcdc">
<script language="javascript">
var i,n;
document.write("<hr color=red>");
for(i=1,n=50;i<=n;i++)
document.write(i+" ");
document.write("<hr color=blue>");
</script>
</body>
</html>
```

\section*{Example:-2}

Write JavaScript code for generating series of odd numbers and even numbers.
< \(\mathrm{Html}>\)
<Head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
var i,n;
document.write("Series of Even Numbers=");
document.write("<hr color=red>");
for \((\mathrm{i}=2, \mathrm{n}=50 ; \mathrm{i}<=\mathrm{n} ; \mathrm{i}+=2\) )
document.write(i+" ");
document.write("<hr color=blue>");
document.write("Series of Odd Numbers=");
document.write("<hr color=red>");
for ( \(\mathrm{i}=1, \mathrm{n}=50 ; \mathrm{i}<=\mathrm{n} ; \mathrm{i}+=2\) )
document.write(i+" ");
document.write("<hr color=blue>");
</script>
</body>
</html>

\section*{Example:-3}

Write JavaScript code for generating series of Fibonacci.
01123581321 34...
<html>
<head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
var i,n,a,b,sum;
document.write ("Series of Fibonacci Numbers=");
document.write ("<hr color=red>");
for \((\mathrm{a}=0, \mathrm{~b}=1\), sum \(=0, \mathrm{i}=1, \mathrm{n}=100 ; \mathrm{i}<=\mathrm{n} ; \mathrm{a}=\mathrm{b}, \mathrm{b}=\) sum,sum=a+b,i++)
document.write (sum+" ");
document.write ("<hr color=blue>");
</script>
```

</body>

```
</html>

\section*{Example:-4}

Write JavaScript code for generating series of many lines.
```

<html>
<head><center><h2>Welcome</h2></center>
</head>
<body bgcolor="#dcdcdc">
<script language="javascript">
var i,n;
document.write("Series of Lines=");
document.write("<hr color=red>");
for(i=1,n=6;i<=n;i++)
document.write("<hr color=#ffff00 >");
document.write("<hr >");
</script>
</body>
</html>
```

\section*{Definition of while loop:-}
```

It executes looping body when condition is true.And exit from loop when condition is false

```

\section*{Syntax of while loop:-}
```

while (criteria)
{
Statement_Blocks;
Updations;
}
Exit_Statement;

```

\section*{Example:-1}

Write JavaScript code for generating sequence of natural numbers.
```

<html>
<head><center><h2>Welcome</h2></center>
<script language="javascript">
</script>
</head>
<body bgcolor="#dcdcdc">
<script language="javascript">
var i=1,n=50;
document.write("Series of Natural Numbers=");
document.write("<hr color=red>");
while(i<=n)
{
document.write(i+" '');
i=i+1;
}
document.write("<hr >");
</script>
</body>
</html>
```

\section*{Example:-2}

Write JavaScript code for calculating factorial of any numbers.
```

<html>
<head><center><h2>Welcome</h2></center>
<script language="javascript">
</script>
</head>
<body bgcolor="#dcdcdc">
<script language="javascript">
var fact=1,i=1,n=7;
document.write("Calculation of Factorial=");
document.write("<hr color=red>");
while(i<=n)
{
fact=fact*i;
i=i+1;
}
document.write("Factorial value of number="+n+"="+fact+" ");
document.write("<hr >");
</script>
</body>
</html>
```

\section*{Example:-3}

Write JavaScript code for generating series of factorial numbers.
```

    <html>
    <head><center><h2>Welcome</h2></center>
    <script language="javascript">
    </script>
    </head>
    <body bgcolor="#dcdcdc">
    <script language="javascript">
    var fact=1,i=1,n=10;
    document.write("Calculation of Factorial=");
    document.write("<hr color=red>");
    while(i<=n)
    {
    fact=fact*i;
    document.write("Factorial value of number="+i+"="+fact+" "+"<br>");
document.write("<hr >");
i=i+1;
}
document.write("<hr >");
</script>
</body>
</html>
do-while loop:-It execute at least one time when condition is false and execute further if condition is true otherwise exit from program.

```

\section*{Syntax of do-while loop:-}
do
\{
Initializations;

Statements;
Updations;
\} while (criteria);
Exit_Statement;

Example1:-
Write JavaScript code for printing name of institute ten times
<html>
<Head><center><h2>Welcome</h2></center>
<script language="javascript">
</script>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
var \(\mathrm{i}=1, \mathrm{n}=10\);
document.write ("Printing name of Institute=");
document.write ("<hr color=red>");
do
\{
document.write ("ICSM"+"<br>");
\(\mathrm{i}=\mathrm{i}+1\);
\}while(i<=n);
document.write("<hr>");
</script>
</body>
</html>
Example2:-
Write JavaScript code for generating reverse of natural numbers.
< Html>
<Head><center><h2>Welcome</h2></center>
<script language="javascript">
</script>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
var \(\mathrm{i}=1, \mathrm{n}=50\);
document.write ("Printing Reverse Natural Numbers=");
document.write ("<hr color=red>");
do
\{
document.write (n+"<br>");
\(\mathrm{n}=\mathrm{n}-1\);
\}while( \(\mathrm{n}>=\mathrm{i}\) );
document.write ("<hr >");
</script>
</body>
</html>

\section*{Lecture 8}

\section*{Function:- (User defined Function):-}
a:- A function without argument and no return value. b:- A function without argument and return value. c:- A function with argument and no return value. d:- A function with argument and return value.
a:- A function without argument and no return value.

\section*{Example:-}
<Html>
<Head><center><h2>Welcome</h2></center>
<script language="javascript">
function f1()
\{
var \(\mathrm{a} 1=3, \mathrm{~b} 1=6, \mathrm{c} 1\);
\(\mathrm{c} 1=\mathrm{a} 1+\mathrm{b} 1\);
document.write ("<hr color=red>");
document.write ("Sum="+c1);
document.write ("<hr color=green>");
\}
function f2()
\{
var \(\mathrm{a} 2=3, \mathrm{~b} 2=6, \mathrm{c} 2\);
\(\mathrm{c} 2=\mathrm{a} 2 * \mathrm{~b} 2\);
document.write("<hr color=blue>");
document.write("Product="+c2);
document.write("<hr color=gold>");
\}
</script>
</head>
<body bgcolor="\#dcdcdc">
<script language="javascript">
f1();
f2();
</script>
</body>
</html>
b:- A function without argument and return value.
<html>
<head><center><h2>Welcome</h2></center>
<script language="javascript">
function \(\mathrm{fl}(\) )
\{
var \(\mathrm{a} 1=3, \mathrm{~b} 1=6, \mathrm{c} 1\);
cl=a1+b1;
return c1;
\}
function f2()
\{
var \(\mathrm{a} 2=3, \mathrm{~b} 2=6, \mathrm{c} 2\);
```

c2=a2*b2;
return c2;
}
</script>
</head>

<body bgcolor="#dcdcdc">
<script language="javascript">
var m1,m2;
m1=f1();
document.write("<hr color=red size=10>");
document.write("Sum="+m1);
document.write("<hr color=green size=10>");
m2=f2();
document.write("<hr color=blue size=10>");
document.write("Product="+m2);
document.write("<hr color=gold size=10>");
</script>
</body>
</html>
c:- A function with argument and no return value.
Example:-
<Html>
<Head><center><h2>Welcome</h2></center>

<script language="javascript">
function f1(al,b1)
{
var c1;
cl=a1+b1;
document.write("<hr color=red size=10>");
document.write("Sum="+c1);
document.write("<hr color=green size=10>");
}
function f2(a2,b2)
{
var c2;
c2=a2*b2;
document.write("<hr color=blue size=10>");
document.write("Product="+c2);
document.write("<hr color=gold size=10>");
}
</script>
</head>

<body bgcolor="#dcdcdc">
<script language="javascript">
var m1,m2;
f1(5,6);
f2(9,5);
</script>
</body>
</html>

```
d:- A function with argument and return value.
```

Example
<Html>
<Head><center><h2>Welcome</h2></center>

<script language="javascript">
function f1(al,b1)
{
var c1;
c1=a1+b1;
return c1;
}
function f2(a2,b2)
{
var c2;
c2=a2*b2;
return c2;
}
</script>
</head>

<body bgcolor="#dcdcdc">
<script language="javascript">
var m1,m2;
m1=f1(25,26);
document.write("<hr color=red size=10>");
document.write("Sum="+m1);
document.write("<hr color=green size=10>");
m2=f2(19,15);
document.write("<hr color=blue size=10>");
document.write("Product="+m2);
document.write("<hr color=gold size=10>");
</script>
</body>
</html>

```

\section*{Paper :- OM-5 (Financial Accounting)}

\section*{What is accounting:-}

Accounting is the systematic and comprehensive recording of financial transactions pertaining to a business. Accounting also refers to the process of summarizing, analyzing and reporting these transactions.

Or

\section*{Definition of Accounting:-}

Accounting is a means of measuring and reporting the results of economic activities.
Human activities may be classified as economic and non-economic activities.

\section*{Example of economic activities:-}

Wages, Salary, Rent, Sales, Purchase, fees, commission, Brokerage, Discount, Freight Etc.
Example of non economic activities:-
Emotional, rendering service by wives, Cultural, Teaching his own Daughter/Son etc.
Book Keeping:-
Bookkeeping is the recording of financial transactions, and is part of the process
of accounting in business. Transactions include purchases, sales, receipts, and payments by an individual person or an organization/corporation.

\section*{According to North Cott:-}

Book keeping is the art of recording in the books of acscounts
the monetary aspect of commercial or financial transactions.

\section*{Meaning of Accounting:-}

Every business has profit motive. It has transactions of financial nature, such as purchasing goods, selling goods, incurring expenceses and receiving income etc.These transactions are financial in nature and affect the profit of the business. Accounting transactions are both money transactions and money worth transactions. Transactions are classified as assets, liabilities, capital, revenue and expenses.

\section*{Characteristics of accounting:-}
* Economic Events.
* Identification, measurement, recording and communication.
* Organization.
* Interested users of informations.

\section*{Economic events:-}

An economic event is an event related to business, which has a definite consequence.

\section*{Example:-}

Example 1:-Purchase of machine in cash has a consequence of increased asset and decrease cash.
Example 2:-Sold of goods in cash has a consequence of increased cash and decrease assets.

Identification, measurement, recording and communication:-
Identification:- involves the analysis of events as regards its materiality that is reflected in accounting books. The event should observed for considerations as economic activity and its relevance as accounting transactions.
Measurement:-It involves quantifications of business transactions in monetary terms.

Recording:-It involves systematic presentations of a transaction to reflect the amount involved and other pertinent details of the transactions.
Communication:-It is a systematic manner aids in managerial decision-making.
Organizations:-
The entity performing business activity can be organized by choosing appropriate form of organizations. It can be sole proprietorship, partnership, company, cooperative society or boards such as Cricket boards, Municipal Board, ICSM, DLW, TATA compony, Reliance Company, BHEL Co., BHU, UPRTOU, FIFA etc.
Interested users of informations:-
The users can be divided into two categories.
* Internal Users.

O Top Level users.
- Middle Level Users.

O Managerial Levels.
* External Users.

O Direct Financial Interest.
O Indirect Financial Interest.

\section*{Accounting as a information System:-}

It provides information related to business/organization. These informations are:-
* Sales.
* Purchase.
* Profit.
* Loss.
* Balance Sheet.
* Marketing.
* Budget.
* Stock Control (Inventory Control).
* Administrations.
* Production.
* Research and development.

Etc.



Qualitative Characteristics of accounting information:-
* Reliability of accounting information.
* Relevance of accounting information.
* Understandability of the accounting information.
* Comparability of accounting information.


\section*{Objectives of Accounting:-}
* Maintaining proper records of business.
* Calculation of profit and Loss.
* Providing effective control over the business.
* Marketing information available to various groups.

\section*{Objective of Accounting}

The objective or function of accounting are
-Maintaining Systematic Records of
transactions.
-Ascertaining profit and loss.
-Ascertaining financial position.
-Assisting the management.
-Communicating Accounting information to users.
-Preventing of frauds.

\section*{Types of Accounting:-}
1. Book-keeping.
2. Financial Accounting.
3. Cost Accounting.
4. Management Accounting.

\section*{Accounting Types}

There are various types of accounting. Those types are determined based on the nature of information analyzed, summarized, reported and on the functions performed


\section*{Limitations of accounting:-}

Accounting is helpful to business in assessing their worth.
Accounting has the following limitations.
- Different accounting policies
- Accounting estimates
- Professional judgment
- Verifiability
- Use of historical cost basis
- Measurability
- Limited predictive value
- Fraud and error
- Cost benefit compromise

\section*{Business transactions:-}

The economic event that relates to a business entity is called business transactions.

\section*{Special Feature of Business transactions:-}
* Business transactions must be financial in nature.
* Business transactions must be supported by documentary evidence.
* Business transactions must be presented in numerical monetary terms.
* Business transactions must cause an effect on assets, liabilities, capital, revenue and expences.

Assets:-
The valuable things owned by the business are known as assets.
Or
Accounting standards define an asset as something your company owns that can provide future economic benefits.
Example:-
Furniture,Machinery,Building,Vehicles,Lands,Inventory etc.

\section*{Classifications of assets:-}

Fixed assets.
Current Assets.
Floating assets.
Wasting Assets.
Liquid assets.
Tangible Assets.
Intangible Assets.

\section*{Fixed Assets:-}

These assets are acquired for long terms in the business.
Or
A long-term tangible piece of property that a firm owns and uses in the production of its income and is not expected to be consumed or converted into cash any sooner than at least one year's time.
Example:-
Land \& Building.
Plant \& Machinery.
Vehicles.
Furniture etc.

\section*{Current Assets:-}

These assets are all those assets, which is used for selling purpose. That produce revenue of business.It is short terms only.

Or
Current assets are cash and any other assets that a company plans to either turn into cash or consume within one year
Example:-
Stocks.
Goods etc.

\section*{Floating Assets:-}

Either these assets increase or decrease there values.
Example:-
A:- Debenture.
B:-Shares.
C:-Fixed deposite Into Bank.
D:-NSC. (National Saving Certificate) 5 years and 10 years.
National Savings Certificates, popularly known as NSC, is an Indian Government Savings Bond, primarily used for small savings and income taxsaving investments in India. It is part of the postalsavings system of Indian Postal Service (India Post).
E:-KVP.(Kisan Vikas Patra).It give double amount in 100 months
F:-MIS(Montholy Income System) 5 years.
G:- \(\operatorname{PPF}\) (Public Providend Fund) 15 years.
H:-MUTUAL FUNDS etc.

\section*{Wasting Assets:-}

These assets, whose value goes on declining with the passage of time, are
known as wasting assets.
* Patents.
* Mines.
* Assets taken on leased Etc.

\section*{Liquid Assets:-}

Liquidity refers to convertibility in cash quickly.

\section*{Example:-}

Cash at Bank.
Blue Chips Shares.
On Line Commodity.

\section*{Tangible Assets:-}

Assets having physical existence which can be seen and touched are known as tangible assets.

\section*{Example:-}

Land \& Building.
Plant \& Machinery.

Vehicles.
Furniture etc.

\section*{Intangible Assets:-}

These are the assets, which are not normally purchased and sold in the open
markets such as.

\section*{Example:-}

Goodwill.
Paitents.
Copyrights.
Trademarks.
Hallmarks etc.

\section*{Capital:-}

It is that part of wealth, which is used for further production, and thus capital consists of all current assets and fixed assets.

\section*{Another DEFINITION OF CAPITAL:-}
1. Financial assets or the financial value of assets, such as cash.
2. The factories, machinery and equipment owned by a business and used in production.

\section*{Example:-}

Cash in hand.
Cash at bank.
Building.
Plant and furniture.
Etc.

\section*{Types of Capital:-}
1) Fixed Capital.
2) Floating Capital.
3) Working Capital.

Fixed capital:-Amount invested in fixed assets for business to the long period. It increases infrastructure.
Example:-
Furniture
Building
Vehicles
Etc.

\section*{Floating Capital:-}

Assets purchased with the intention of sales such as stocks, investments.
Example:-Shares, Bank FD, NSC, RD,TD etc.

\section*{Working Capital:-}

The part of capital available with the firm for day-to-day working of the business is known as working capital.

Working Capital=Current assets-current Liabilities

\section*{Liability or Equity:-}

Liabilities are the obligations or debts payable by the enterprise in future in
the form of money or goods. It is the proprietor's and creditors claim against the assets of the business.

Or
In financial accounting, a liability is defined as an obligation of an entity arising from past transactions or events, the settlement of which may result in the transfer or use of assets, provision of services or other yielding of economic benefits in the future.

\section*{Classifications of Liabilities:-}
* Fixed Liabilities.
* Current liabilities.
* Contingent Liabilities/Doubtful Liabilities.

\section*{Fixed liabilities:- (Long term Liabilities)}

These liabilities are paid after a long period (After One Year).
Example:-
Capital, Loans, Debentures/Gauranteed return with high rate of interest.
NSC,PPF,KVP,FD,Etc.

\section*{Current Liabilities:- (Short Term Liabilities):-}

Liabilities payable within a year termed as current liabilities.
Examples:-
Bills Payables.
Bills Receivable.
Outstanding Income/Expenses.
Etc.

\section*{Contingent liabilities:-}

These are not the real liabilities. Future events can only decide whether it is really a Liability or not due to uncertainty.

In financial accounting, a liability is defined as an obligation of an entity arising
from past transactions or events, the settlement of which may result in the transfer or use of assets, provision of services or other yielding of economic benefits in the future.

A liability is defined by the following characteristics:
- Any type of borrowing from persons or banks for improving a business or personal income that is payable during short or long time;
- A duty or responsibility to others that entails settlement by future transfer or use of assets, provision of services, or other transaction yielding an economic benefit, at a specified or determinable date, on occurrence of a specified event, or on de mand;
- A duty or responsibility that obligates the entity to another, leaving it little or no discretion to avoid settlement; and,
- A transaction or event obligating the entity that has already occurred.

\section*{Example:-}

Accidental claim of insurance.
Guarantees undertaken.
Cases pending in the court of law.

\section*{Stock/Inventory:-}

The goods available with the business for sale on a particular date are termed as stock.
Example:-
Stock of Raw Materials.
Stock of work in progress.
Stock of Finished Goods.

\section*{Revenue:-}

Revenue in accounting means the amount realized or receivable from the sale of goods. Amount received from sale of assets or borrowing loan is not revenue.

Or
Revenues or revenue in business is the gross income received by an entity from its normal business activities before any expenses have been deducted. Income may be received as cash or cash equivalent and is typically generated from the sale of goods or the rendering of services for a particular period of time

\section*{Expense:-}

Expenses are cost incurred by the business in the process of earning revenues. Generating income is the foremost objective of every business.

Or
An expense in accounting is the money spent or cost incurred in an entity's efforts to generate revenue. Expenses represent the cost of doing business where doing business is the sum total of the activities directed towards making a profit.

\section*{Expenditure:-}

Expenditure is the amount of resources consumed. It is the benefit to be derived in future. It is the amount spent for the purchase of assets.
Expenditures increase the profit earning capacity of the business and profit is expected from them in future.

\section*{Debtors:-}

It represents the persons or parties who have purchased goods on credit from us and have not paid for the goods sold to them.

Or
A debtor is a person or entity that owes money. In other words, the debtor
has a debt or legal obligation to pay an amount to another person or entity. For example, if you borrow Rs 10,000 from a bank, you are the debtor and the bank is the creditor.

\section*{Creditors:-}

The sellers of goods on credits to the firm are known as its creditors of goods.

> Or

A creditor is a party (e.g. person, organization, company, or government)
that has a claim on the services of a second party. It is a person or institution to whom money is owed.

\section*{Proprietor:-}

An individual or groups of persons who undertake the risk of the business are known as proprietor. They invest their funds into business as capital.

\section*{Liability of Proprietors:-}
* Arrangement of Land.
* Arrangement of Labour.
* Payment of salary, Wages, Rent Etc.
* Payment of Electricity Bill and Telephone bills.

Note:-Proprietor is rewarded with profit for the risk undertaken by him.

\section*{Drawing:-}

Amount or a goods withdrawn by the proprietor for his private or personal use is termed as drawing. It is the capital of business.

\section*{Solvent :-( Financial Sound Firms or Companies)}

Solvent are those persons and firms who are capable of meeting their liabili
ties out of their resources. Solvent firms have sufficient funds and assets to meet proprietors and creditors claim.
Insolvent:-(Financial weak Firms or Companies)
All business firms who have been suffering losses for the last many years and are not even capable meeting their liabilities out of their assets are financially unsound.
Vouchers:-
Accounting transactions must be supported by documents. These
documentary proofs in support of the transactions are termed as
vouchers.

\section*{Example:-}

Cash Memo.
Wages Bill.
Salaries Bill.
Receipt Etc.

\section*{Accounting Year: - (Financial Year/Fiscal vear/Periodic vear)}

Books of accounts are closed annually.
1 April of current Year \(\rightarrow\) Commencement Date.
31 March of next Year \(\rightarrow\) Closing Date.

\section*{Entry:-}

An entry is the systematic records of business transactions in the books of accounts. It must be implemented by dual laws.
That is Dr. and Cr. rules.

\section*{Functions of accounting data:-}
1. Measurement of past performance.
2. Forecasting future performance.
3. Helping decision-making.
4. Controlling of performance.

Etc.

\section*{Rules of Dr. and \(\mathbf{C r}\) in account.}

1:- Personal A/c.
2:-Impersonal A/c.
Personal A/c:-
The accounts which relates to an individual, firm, company or instituation are called personal \(\mathrm{a} / \mathrm{c}\). There are three kinds of personal \(\mathrm{a} / \mathrm{c}\).
a) Natural Personal A/c.
b) Artificial Personal A/c.
c) Outstanding Personal \(\mathrm{A} / \mathrm{c} /\) Representative Personal \(\mathrm{A} / \mathrm{c}\).

\section*{Examples:-}

Capital A/c.
Bank of Baroda A/c.
ICSM a/c
Dinesh A/c.
BCCI A/c.
Outstanding interest \(\mathrm{A} / \mathrm{c}\).
Interest receivable A/c.
Outstanding wages A/c.
Etc.
Rules of Dr and Cr for personal \(\mathrm{A} / \mathrm{c}\) :-
Receiver is \(\rightarrow\) Dr.
Giver is \(\quad \rightarrow \quad \mathrm{Cr}\).
Impersonal A/c:-
1:- Real A/c.
2:- Nominal A/c.

\section*{Real A/c:-}

The accounts of all those things whose value can be measured in terms of money and which are properties of the business are termed as real accounts. There are two categories of real accounts.
a:- Tangible Real A/c.
b :- Intangible Real A/c.

\section*{Example of Tangible:-}

Sales A/c, Purchase A/c, Building A/c, Machinery A/c, Stock a/c, Lands A/c
Furniture \(\mathrm{A} / \mathrm{c}\) etc.

\section*{Example of Intangible:-}

Patent A/c, Goodwill A/c, Trademark A/c, Copyright A/c, Hallmark a/c
Etc.
Rules of Dr. and Cr. for Real A/c.:-
What comes in \(\rightarrow\) Dr.
What goes out \(\rightarrow\) Cr.

\section*{Nominal A/c:-}

These accounts include the accounts of all expenses or losses and Income or gain.

\section*{Examples:-}

Bad debts.
Salary a/c
Rent A/c
Discount Rec a/c
Discount Pd a/c
Income tax A/c
Carriage Inwards
Carriage Outwards
Royalty A/c
Bank charges A/c
Brokerage A/c
Railway freight A/c
Publicity A/c
Loss of Stock by fire a/c
Loss of Stock by theft a/c
Printing and stationary a/c
Audit Fees A/c
Gas \& Light A/c
Packing Charges A/c
Trade Expenses A/c
Commission rec A/c
Commission Pd A/c

\section*{Rules of Dr. and Cr. for Nominal A/c.:-}
All Expenses or losses a/c
Dr.
All Income or Gain a/c
\(\mathrm{By} \rightarrow \mathrm{Dr}\).
Cr.
\(\mathrm{To} \rightarrow \mathrm{Cr}\).

Three Golden Rules of A/C

Personal Accounting :
Real Accounting :
Nominal Accounting :

Debit the Receiver, Credit the Giver
Debit what comes in, Credit what goes out.
Debit all Expenses and Losses, Credit all
Incomes and Gains.

Format of Journal:-


Example:- Let us consider a company, which is given below.

\section*{Company TATA PVT LTD}

1:-Started Business with cash. 10000/-
By Cash A/c Dr 10000/-
To Capital A/c
Cr. 10000/-
(Being started Business with cash)
2:-Started business with cash Rs 10000/ and goods of Rs.10000/-
By Cash A/c Dr 10000/-
By Goods A/c Dr 10000/-
To Capital A/c Cr. 20000/-
(Being started Business with cash and goods)
3:-Purchased of goods Rs 5000/- by cash.
Purchase A/c Real A/c Dr
Cash A/c Real A/c Cr.
By Purchase a/c Dr. 5000/-
To cash A/c Cr. 5000/-
(Being purchased good by cash)
4:-Purchased of goods Rs 5000/- by Deepak \& Sons.
Deepak \& Son A/c Personal A/c cr
Purchase A/c Real A/c Dr
By Purchase a/c
Dr. 5000/-
To Deepak \& sons A/c Cr. 5000/-
(Being purchase on credit)
5:-Sold of goods Rs 2000/- To Sunita by cash.
Cash A/c Real A/c Dr
Sales A/c real A/c Cr
By Cash a/c Dr. 2000/-
To Sales A/c Cr. 2000/-
(Being sold goods by cash to sunita)
6:-Sold of goods Rs 2000/- To Sunita.
Sunita A/c Personal A/c Dr
Sales A/c real A/c Cr
By Sunita a/c Dr. 2000/-
To Sales A/c Cr. 2000/-
(Being sold goods on credit to sunita)
7:-Paid salary 2000/-
Salary A/c Nominal A/c Dr
Cash A/c Real A/c
Cr
By Salary A/c
Dr. 2000/-
To Cash A/c
(Being paid salary)
8:-Paid wages 500/-.
Wages A/c Nominal A/c Dr
Cash A/c Real A/c \(\quad \mathrm{Cr}\)
By Wages A/c Dr. 500/-
To Cash A/c Cr. 500/-
(Being paid wages)

9:-Received Commission 500/-.
Commission Rec A/c Nominal A/c
Cr
Cash A/c Real A/c Dr
By Cash A/c Dr. 500/-
To Commission Rec A/c Cr. 500/-
(Being received Commission)
10:-Purchased furniture 1500/-.
Furniture Fixed Assets Real A/c Dr
Cash A/c
Real A/c
By Furniture
Dr. 1500/-
To cash A/c Cr. 1500/-
(Being purchased furniture)
11:- Purchased Machinery 2000/-.
By Machinery A/c Dr. 2000/-
To Cash A/c Cr. 2000/-
(Being purchased machinery by cash)
12:-Goods Returned to Deepak \& Sons. 1000/-
By Deepak \& Sons A/c Dr. 1000/-
To Purchase return a/c Cr. 1000/-
(Being purchased goods returned to Deepak \& Sons)
13:-Sunita returned goods
Rs.500/-
By Sales return A/c
Dr. 500.
To Sunita A/c
Cr. 500 .
(Being goods returned by sunita)
14:-Distribution of goods as free sample.
By Free sample A/c
To Purchase A/c
1200/-
Dr 1200/-
(Being free distribution of sample).
15:-Loss of goods by theft 2000/-
By Loss of goods Theft A/c Dr. 2000/-
To Purchase A/c Cr. 2000/-
(Being goods loss by theft)
16:- Loss of cash by theft 500/-
By Loss of Cash by Theft Dr. 500/-
To Cash A/c
Cr. 500/-
(Being cash theft)
17:- Loss of goods by fire 1000/-
By Loss of goods by fire \(\mathrm{A} / \mathrm{c}\)
Dr. 1000/-
To Purchase A/c
Cr. 1000/-
(Being goods loss by fire)
18:- Loss of cash by fire 1000/-
By Loss of cash by fire A/c
To Cash A/c
(Being cash loss by fire)

19:- Advance received by sunita. 300/-
By Cash A/c Dr 300/-

To Sunita A/c
Cr. 300/-
(Being advanced received by sunita)
20:-Sunita become insolvent and received 50/- paisa in a rupee.
By Cash A/c
By Bad debt A/c
To Sunita A/c
Dr. 750/-
Dr. 750/-
Cr. 1500/-
(Being sunita Become insolvent).
21:-Outstanding salaries Rs. 300/-
By Salary A/c
To Outstanding Salary A/c
Dr. 300/-
(Being salaries due)
22:-Prepaid insurance Rs 500/-
By Prepaid Insurance A/c
To Insurance A/c
Dr. 500/-
Cr. 500/-
(Being prepaid insurance)
23:- Interest on capital Rs. 200/-
By Interest on capital A/c
To Capital a/c
Dr. 200/-
(Being interest on capital)
24:-Depreciation on furniture Rs. 200/-
By Depreciation A/c Dr. 200/-
To Furniture A/c Cr. 200/-
(Being depreciation on furniture)
25:-Depreciation on Machinery Rs. 200/-
By Depreciation A/c
Dr. 200/-
To Machinery A/c Cr. 200/-
(Being depreciation on Machinary)
26:-Apreciation on Lands and Building Rs. 20000/-
By Lands \& Building A/c
Dr. 20000/-
To Apreciation A/c Cr. 20000/-
(Being appreciation on Lands \& Building)
27:- Payments Deepak \& Sons Rs. 1000/-
By Deepak \& Sons Dr. 1000/-
To Cash A/c Cr. 1000/-
(Being paid Deepak \& Sons).
28:-Sold to sunita and allowed \(10 \%\) cash discount. 2000/-
By Cash A/c Dr. 1800/-
By Discount A/c
Dr. 200/-
Cr. 2000/-
(Being sold goods \& allowed 10\% C.D.)
29:-Sold to Neeraj and allowed \(10 \%\) Trade discount. 2000/- by cash
By Cash A/c
To Sales A/c Cr. 1800/-
(Being sold goods \& allowed \(10 \%\) T.D.)
30:-Sold old news papers, magazines. Rs 200/-
By Cash A/c
To Miscellaneous Assets A/c Cr. 200/-
(Being sold old news papers \& Magazines)
31:-Subsrcibing for newspapers, Magzines and periodicals Rs. 200/-
By Miscellaneous Expenditure A/c Dr. 200/-
To Cash A/c Cr. 200/-
(Being subscribing newspapers)

\section*{Transaction Based On Bank:-}

1:- When cash is deposited into bank.
By Bank A/c Dr.

To Cash A/c Cr.
2:- When cash withdrawn from the bank.
By Cash A/c Dr.
To Bank A/c
Cr .
3:-When cheques, drafts etc received from the customers are
Deposited into the bank on the same day.
By Bank a/c Dr.
To Customer's A/c Cr.
4:- When cheques, drafts etc received from the customers are not sent to bank on the same day.

By Cash a/c
Dr.
To Customer's A/c Cr.
5:-On the date when above cheques, drafts etc. are sent to the bank.
By bank A/c
To cash A/c
6:- When a customer directly deposits the amount in our bank account.

By Bank a/c Dr.
To Customer's A/c Cr.
7:-When a cheque previously deposited into the bank is dishonored.

By Customer's A/c
To Bank A/c
8(A) When a cheque is received from a customer and discount is allowed to him and if the cheque is deposited into the bank on the same day.
By Bank A/c
Dr.
By Discount Pd A/c
Dr.

To Customer's A/c
Cr .

8(B) In case the above cheque is dishonoured, the discount allowed to the customer will be withdrawn.
By Customer's A/c Dr.
To Bank A/c Cr.
To Discount Rec A/c Cr.
9:-When payment is made by issue of cheque.
By Personal A/c Dr.
To Bank A/c
Cr .
10:-When expenses are paid by the issue of a cheque.
By Expenses A/c
Dr.
To bank A/c
Cr .
11:- When cash is withdrawn from the bank for the personal use of the proprietor.
By Drawing A/c Dr.
To bank A/c Cr.
12(A):-When interest is charged by bank.
By Interest Charged A/c Dr.
To Bank A/c Cr.
12(B):-When interest is allowed by bank.
By Bank A/c Dr.
To Interest A/c
Cr .
13:- When bank charges some amount for the services rendered by the bank.
By Bank Charges A/c Dr.
To Bank A/c Cr.

TALLY LEDGER \& GROUP LIST
\begin{tabular}{|l|l|}
\hline Accounts Name & Groups \\
\hline Accrued Income & Current Assets \\
\hline Accrued Rent/ Accrued Income & Current Assets \\
\hline Advertisement Expenses & Indirect Expenses \\
\hline Advertisement Payable & Current Liabilities \\
\hline Air Conditioner & Fixed Assets \\
\hline Apprentice Premium & Direct Incomes \\
\hline Audit Fees & Indirect Expenses \\
\hline Bad Debts & Indirect Expenses \\
\hline Bad Debts Received & Indirect Incomes \\
\hline Bad Debts Reserve (last year balance) & Indirect Incomes \\
\hline Bank & Bank Account \\
\hline Bank Balance & Bank Account \\
\hline Bank Charges & Indirect Expenses \\
\hline Bank Commission & Indirect Expenses \\
\hline Bank Loan & Loans \& Liabilities \\
\hline Bank Overdraft & Bank OD \\
\hline Bills Payable & Current Liabilities \\
\hline Bills Receivable & Current Assets \\
\hline Bombay Branch & Branch \& Division \\
\hline Bonds & Current Assets \\
\hline Building & Fixed Assets \\
\hline Capital & Capital Account \\
\hline Car & Fixed Assets \\
\hline Car Expenses & Indirect Expenses \\
\hline Car Repair & Indirect Expenses \\
\hline Carriage & Direct Expenses \\
\hline Carriage on Sales & Indirect Expenses \\
\hline Cash & Cash in Hand \\
\hline Cash at Bank & Bank Account \\
\hline Closing Stock & Stock in Hand \\
\hline Coal \& Fuel & Direct Expenses \\
\hline Coal, Gas \& Water of Factory & Direct Expenses \\
\hline Coffee Expenses & Indirect Expenses \\
\hline Coke Expenses & Indirect Expenses \\
\hline Commission (Cr.) / Commission Received & Indirect Incomes \\
\hline Commission (Dr.) & Indirect Expenses \\
\hline Computer & Fixed Assets \\
\hline Consignment Stock & Current Assets \\
\hline Consumed Material & Direct Expenses \\
\hline Coolage & Direct Expenses \\
\hline Creditors & Sundry Creditors \\
\hline Debtors & Deferred Expenses \\
\hline Deferred Income & \\
\hline & 年
\end{tabular}
\begin{tabular}{|l|l|}
\hline Delhi Branch & Branch \& Division \\
\hline Depreciation & Indirect Expenses \\
\hline Depreciation Reserve & Current Liabilities \\
\hline Difference in Trial Balance (Dr or Cr) & Suspense Account \\
\hline Discount (Cr.) / Discount Received & Indirect Incomes \\
\hline Discount (Dr) / Discount Allowed & Indirect Expenses \\
\hline Donation & Indirect Expenses \\
\hline Drawing & Capital Account \\
\hline Electricity Expenses & Indirect Expenses \\
\hline Expenses on Purchases & Direct Expenses \\
\hline Expenses on Sales & Indirect Expenses \\
\hline Export Duty & Indirect Expenses \\
\hline Factory & Fixed Assets \\
\hline Factory Expenses (Lighting, Power etc.) & Direct Expenses \\
\hline Factory Incomes & Direct Incomes \\
\hline Farm House & Fixed Assets \\
\hline FDR & Current Assets \\
\hline Fire Insurance & Indirect Expenses \\
\hline Fitting Charges Received & Indirect Income \\
\hline Forex Gain Loss & Indirect Expenses \\
\hline Freight & Direct Expenses \\
\hline Freight Inward & Direct Expenses \\
\hline Freight on Purchase (Freight Inward) & Direct Expenses \\
\hline Freight on Sale (Freight Outward) & Indirect Expenses \\
\hline Freight Outward & Indirect Expenses \\
\hline Fuel \& Power of Factory & Direct Expenses \\
\hline Furniture \& Fitting & Fixed Assets \\
\hline Furniture \& Fixture & Fixed Assets \\
\hline Gas and Water & Indirect Expenses \\
\hline General Expenses & 59 \\
\hline General Reserve & Indirect Expenses \\
\hline Godown Rent & Indirect Expenses \\
\hline Goods Sent on Consignment & Current Liabilities \\
\hline Goodwill & Indirect Expenses \\
\hline Horse \& Carts & Sales Account \\
\hline House Rent & Fixed Assets \\
\hline Hundi (Assets) & Fixed Assets \\
\hline Hundi (Liability) & Capital Account \\
\hline Import Duty & Current Assets \\
\hline Income From Repair & Current Liabilities \\
\hline Income on Assets & Indirect Incomes \\
\hline Income on Investments & Indeomes \\
\hline Income Tax & Inpors \\
\hline Input VAT 1\% 4\%, 12.5\% & Insurance \\
\hline Insurance Claim & Insurance Company \\
\hline Interest (Dr.) & Interest on Capital \\
\hline & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|}
\hline Interest on Drawing & Indirect Incomes \\
\hline Interest on Loan & Indirect Expenses \\
\hline Interest Received (Cr.) & Indirect Incomes \\
\hline Invest in Govt. Bond & Investment \\
\hline Investment & Investment \\
\hline Labour Charges & Indirect Expenses \\
\hline Land \& Building & Fixed Assets \\
\hline Lease Hold Building & Fixed Assets \\
\hline Legal Expenses & Indirect Expenses \\
\hline LIC Premium (Dr) & Capital Account \\
\hline LIC Refund (Cr) & Capital Account \\
\hline Life Insurance & Capital Account \\
\hline Loan on Mortgage, Loans & Loans \& Liabilities \\
\hline Loose Tools & Fixed Assets \\
\hline Loss By Damage & Indirect Expenses \\
\hline Loss by Fire & Indirect Expenses \\
\hline Loss in Transit & Indirect Expenses \\
\hline Loss on Assets & Indirect Expenses \\
\hline Loss on Joint Venture & Indirect Expenses \\
\hline Machine \& Tools & Fixed Assets \\
\hline Machine Repair & Indirect Expenses \\
\hline Manager's Commission & Indirect Expenses \\
\hline Manufacturing Expenses & Direct Expenses \\
\hline Master Plus & Investment \\
\hline Miscellaneous Expenses & Indirect Expenses \\
\hline Miscellaneous Income & Indirect Incomes \\
\hline Motor Cycle & Fixed Assets \\
\hline Motor Cycle Repair & Indirect Expenses \\
\hline Mutual Fund & Indirect Incomes \\
\hline Octroi & Indirect Expenses \\
\hline Office Expenses & Investment \\
\hline Oil & Direct Expenses \\
\hline Opening Stock & Indirect Expenses \\
\hline Output VAT 1\% 4\%, 12.5\% & Direct Expenses \\
\hline Outstanding Expenses & Stock in Hand \\
\hline Packing Exp. & Duties \& Taxes \\
\hline Pan and Tea Expenses & Current Liabilities \\
\hline Personal Expenses & Indirect Expenses \\
\hline Petrol Expenses & Indirect Expenses \\
\hline Plant \& Machine & Indired \\
\hline Postage \& Telegram & Indirect Expen Expenses \\
\hline Power \& Fuel & Preses \\
\hline Prepaid Expenses & Printing \& Advertisement \\
\hline Printing \& Stationery & Prirens \\
\hline Production Wages & Profit on Jonsignment venture \\
\hline
\end{tabular}
\begin{tabular}{|l|l|}
\hline Provision for Bad Debts & Indirect Expenses \\
\hline Provision for Discount on Creditors & Indirect Incomes \\
\hline Provision for Discount on Debtors & Indirect Expenses \\
\hline Provision for Office Expenses & Current Liabilities \\
\hline Purchase & Purchase Account \\
\hline Purchase of New Land & Fixed Assets \\
\hline Purchase of Raw Material & Purchase Account \\
\hline Purchase Return & Purchase Account \\
\hline Railway Authority & Sundry Debtors \\
\hline Rates \& Taxes & Indirect Expenses \\
\hline Refreshment Expenses & Indirect Expenses \\
\hline Refrigerator & Fixed Assets \\
\hline Rent & Indirect Expenses \\
\hline Rent \& Tax & Indirect Expenses \\
\hline Rent Payable & Current Liabilities \\
\hline Rent Received & Indirect Incomes \\
\hline Repair \& Renovation & Indirect Expenses \\
\hline Repairing Charges Received & Indirect Incomes \\
\hline Return Inward & Sales Account \\
\hline Return Outward & Purchase Account \\
\hline Salary & Indirect Expenses \\
\hline Salary \& Wages & Indirect Expenses \\
\hline Salary Payable & Current Liabilities \\
\hline Sales & Sales Account \\
\hline Sales Return & Sales Account \\
\hline Sales UP/ Sales Ex-UP & Sales Account \\
\hline Shares / Bonds & Investments \\
\hline Shop & Fixed Assets \\
\hline Shop Expenses & Indirect Expenses \\
\hline Shop Rent & Indirect Expenses \\
\hline Stationery & Direct Expenses \\
\hline Stock of Material & Indirect Expenses \\
\hline Sundry Creditors & Current Assets \\
\hline Sundry Debtors & Sundry Creditors \\
\hline Tea Exp. Payable & Sundry Debtors \\
\hline Tea or Coffee Expenses & Current Liabilities \\
\hline Telephone Expenses & Indirect Expenses \\
\hline Telephone Securities & Indirect Expenses \\
\hline Trade Expenses & Indirect Expenses \\
\hline Trair Freight \& Rent & Indirect Expensenses \\
\hline Travelling Expenses & Unearned Income \\
\hline VAT Payable & Vehicle Repair \\
\hline Wages & Wages on Production \\
\hline
\end{tabular}
\begin{tabular}{|l|l|}
\hline Name Of Account & Name of Groups \\
\hline Capital A/c & Capital \\
\hline Stock A/c & Current Assets \\
\hline Sales A/c & Sales \\
\hline Purchase A/c & Purchase \\
\hline Sales Return A/c & Sales \\
\hline Purchase Return A/c & Purchase \\
\hline SBI Bank a/c & Bank \\
\hline Ashish A/c(Debtors) & Sundry Debtors \\
\hline Kesharwani Brothers A/c(Creditors) & Sundry Creditors \\
\hline Furniture A/c & Fixed Assets \\
\hline Machinery A/c & Fixed Assets \\
\hline Building A/c & Fixed Assets \\
\hline Old News Papers A/c & Miscellaneous Assets \\
\hline Old Furniture A/c & Miscellaneous Assets \\
\hline Shares, Debentures A/c & Investment \\
\hline Discount Pd A/c & Indirect expenses \\
\hline Discount Rec A/c & Indirect Income \\
\hline Commission Pd A/c & Indirect expenses \\
\hline Commission Rec A/c & Indirect Income \\
\hline Salary A/c & Indirect expenses \\
\hline Rent A/c & Indirect expenses \\
\hline Wages A/c & Direct expenses \\
\hline Electricity Bill A/c & Indirect expenses \\
\hline Telephone Bill A/c & Indirect expenses \\
\hline Depreciation A/c & Indirect expenses \\
\hline Appreciation A/c & Indirect Income \\
\hline Bad debt A/c & Indirect expenses \\
\hline Goodwill A/c & Fixed assets \\
\hline Drawing A/c & Capital a/c \\
\hline Trade expenses A/c & Indirect expenses \\
\hline Travelling Expences A/c & Indirect expenses \\
\hline Advertisemen A/c & Indirect expenses \\
\hline Railway Freight A/c & Indirect expenses \\
\hline Profit on sale of Furniture A/c & Indirect Income \\
\hline Loss By Fire A/c & Indirect expenses \\
\hline Loss by theft A/c & Indirect expenses \\
\hline Free Sample Distribution A/c & Indirect expenses \\
\hline Brokerage A/c & Indirect expenses \\
\hline Gas \& Light A/c & Indirect expenses \\
\hline Audit fees A/c & Indirect expenses \\
\hline Outstanding salary A/c & Current Liability \\
\hline VAT & Duties \& Taxes \\
\hline & \\
\hline
\end{tabular}

\section*{Creation of Company:-}


Example:-1
Journalise the following transactions of Mr. Patil, post them to ledger.
1Jan 2015
Started business with cash.
Rs. 10000/-
2 Jan 2015
Bought goods worth.
Rs.5000/-
4 Jan 2015
Sold goods to Ramesh.
Rs.2000/-
6 Jan 2015 Ramesh returned goods worth. Rs.1500/-
7 Jan 2015
Received from Ramesh.
Rs. 1800/-
8 Jan 2015 Sold goods to Ravi worth Rs. 1000/- on cash
Mr. Patil
1Jan 2014
By Cash A/c Dr. 10000/-
To Capital A/c
(Being started business by cash)
2Jan 2014
By Purchase A/c
Dr. 5000/-
To Cash A/c
Cr. 5000/-
(Being purchased goods by cash)
4Jan 2014

By Ramesh A/c
To Sales A/c
(Being sold goods on credit)

Dr. 2000/-
Cr. 2000/-

6Jan 2014
By Sales return A/c Dr 1500/-
To Ramesh A/c
Cr
1500/-
(Being sales return by Ramesh)
7Jan 2014
\(\begin{array}{lllll}\begin{array}{l}\text { By Cash A/c } \\ \text { To Ramesh A/c } \\ \text { (Being paid by Ramesh) }\end{array} & & \text { Dr. 1800/- } & \\ \text { Cr. } & & \text { 1800/- }\end{array}\)
8Jan 2014
\begin{tabular}{lllll} 
By Cash A/c & Dr. 1000/- & \\
To Sales A/c & & Cr. & &
\end{tabular}
(Being cash sale)
C/F Carried Forward.
B/F Brought Forward.
Groups:-

Capital A/c
Sale A/c
Sales return A/c
Purchase A/c
Ramesh A/c Sundry Debtor
Cash A/c

Capital
Sales
Sales
Purchase

Cash in hand

Example:-2
Journalize the following transactions of Mr Kishor post them to ledger.
1Jan 2014 Started business by Kishore with Rs. 15000 cash \& goods of Rs 5000/-
2Jan 2014 Paid into bank Rs.2000/-
5Jan 2014 Cash purchases. Rs.1500/-
14Jan 2014 Purchased goods from Swami \& Co. worth Rs. 1000/- Less 2\% trade discount.
15Jan 2014 Cash sales Rs 2000/-
18Jan 2014 issued a cheque to swami and co. for Rs 490 and he allowed us a discount of Rs 10 .
20Jan 2014 Credit sales worth Rs. 1000/- to Madhav less 5\% Trade Discount.
25Jan 2014 Paid salary by cheque Rs. 150 and by cash Rs. 200/-
27Jan 2014 Withdraw for private users. 100/-
31Jan 2014 Deposited into bank 400/-
Example:-3
Journalize the following transactions of \(\operatorname{Mr} \mathbf{S} \& P\) post them to ledger.
1Jan 2014 Started business by cash. Rs 25000/-
3Jan 2014 Deposited into bank.
Rs. 5000/-


Solution:-2

\section*{\(\underline{\text { Mr. Kishor }}\)}

Receipt
1 Jan 2014
\begin{tabular}{lll} 
By Cash A/c & Dr. & \(15000 /-\) \\
By Goods A/c & Dr. & \(5000 /-\)
\end{tabular}

To Capital A/c Cr 20000/-
(Being Started business with cash \& Goods)
Contra
2 Jan 2014
By Bank A/c Dr. 2000/-
To Cash A/c Cr. 2000/-
(Being cash deposited into bank)
Purchase
5 Jan 2014
By Purchase A/c Dr. 1500/-
To cash A/c Cr. 1500/-
(Being cash purchased)
14 Jan 2014
Trade discount \(=1000 * 2 \%=20\)
Amount \(=1000-20=980\)
By Purchase A/c Dr. 980/-
To Swami \& Co. Cr. 980/-
(Being purchased on credit \& receive \(2 \% \mathrm{TD}\) )
15 Jan 2014
By Cash A/c Dr. 2000/-
To Sales A/c Cr. 2000/-
(Being cash sales)
18 Jan 2014
By Swami \& Co.A/c Dr. 490
To Bank A/c Cr. 480/-
To Discount Rec A/c Cr. 10/-
(Being issued a cheque and receive CD Rs. 10).
20 Jan 2014
By Madhav A/c Dr. 950/-
To Sales A/c Cr. 950/-
(Being Sale on credit).
25 Jan 2014
By Salary A/c Dr. 350/-
To Bank A/c Cr. 150/-
To Cash A/c Cr. 200/-
(Being paid salary with cash and cheque)
27 Jan 2014
By Drawing A/c Dr. 100/-
To Cash A/c Cr. 100/-
(Being withdrawn cash for personal use).
31Jan 2014
By Bank A/c Dr 400/-
To Cash A/c Cr. 400/-
(Being cash deposited into bank).

\section*{Groups of Mr. S\& P Company:-}
\begin{tabular}{ll} 
Capital A/c & Capital \\
Bank A/c & Bank \\
Purchase A/c & Purchase \\
Sale A/c & Sale \\
Sharma A/c & Sundry creditors \\
Verma A/c & Sundry debtor \\
Purchase Return A/c & Purchase \\
Sales Return A/c & Sale \\
Interest Rec A/c & Indirect Income \\
Commission Rec A/c & Indirect Income \\
Interest Pd A/c & Indirect Expenses \\
Commission Pd A/c & Indirect Expenses \\
Sohan A/c & Sundry creditors \\
Salary A/c & Indirect Expenses \\
Rent A/c & Indirect Expenses
\end{tabular}

\section*{Solution 3:-}

\section*{Mr S\& P}

1Jan 2014
By Cash A/c Dr. 25000/-
To Capital A/c Cr 25000/-
(Being started business with cash).
3Jan 2014
By Bank A/c Dr. 5000/-
To cash A/c Cr. 5000/-
(Being cash deposited into bank)
4Jan 2014
By Purchase A/c Dr. 10000/-
To Cash A/c Cr. 10000/-
(Being purchased goods by cash)
5Jan 2014
By cash A/c Dr. 15000/-
To Sales A/c Cr. 15000/-
(Being sold goods by cash)

6Jan 2014
By purchase A/c Dr. 5000/-
To Sharma A/c Cr. 5000/-
(Being purchased goods by credit)
7Jan 2014
By Verma A/c Dr. 8000/-
To Sales A/c Cr. 8000/-
(Being sold goods to verma on credit)

By Sharma A/c Dr. 1000/-
To Purchase returned A/c Cr. 1000/-
(Being goods returned to Sharma)
9Jan 2014
By Sales return A/c Dr. 1000/-
To Verma A/c Cr. 1000/-
(Being goods returned by Verma)
10 Jan 2014
By Sharma A/c Dr. 4000/-
To cash A/c Cr. 4000/-
(Being payment to Sharma)
12 Jan 2014
By Cash A/c Dr. 6000/-
To Verma A/c Cr. 6000/-
(Being cash received from Verma)
15 Jan 2014
By cash A/c Dr. 1500/-
To interest RecA/c Cr. 1500/-
(Being interest received)
17 Jan 2014
By cash A/c Dr. 2000/-
To Commission rec A/c Cr. 2000/(Being commission received)

18 Jan 2014
By Interest Pd A/c Dr. 1000/-
To cash A/c Cr. 1000/-
(Being interest paid).
20 Jan 2014
By Commission Pd A/c Dr. 1500/-
To Cash A/c
Cr. 1500/-
(Being commission paid).
22 Jan 2014
By purchase A/c Dr. 8000/-
To Sohan A/c Cr. 8000/-
(Being purchased by credit)
24 Jan 2014
By Sohan A/c Dr 3000/-
To Bank A/c Cr. 3000/-
(Being Paid sohan by cheque)

By Cash A/c Dr. 10000/-
To sales A/c Cr. 10000/-
(Being cash sales)
28 Jan 2014
By Bank A/c Dr. 5000/-
To Cash A/c Cr. 5000/-
(Being deposited into bank)
29 Jan 2014
By Salary A/c Dr. 5000/-
To Bank A/c Cr 5000/-
(Being paid salary by cheque)
30 Jan 2014
By CashA/c Dr. 3000/-
To Bank A/c Cr. 3000/-
(Being withdrawn from bank)
31 Jan 2014
By Rent A/c Dr. 2000/-
To Cash A/c Cr. 2000/-
(Being Paid rent)

\section*{Example:-4}

Enter the following transactions in the journal of Siya ram.
1 Jan 2014 Siya Ram Started business with cash. 50000/-
2 Jan 2014 Purchased goods for cash. 20000/-
4 Jan 2014 Purchased goods from Subhash. 12000/-
5 Jan 2014 Purchased furniture for cash. 6000/-
7 Jan 2014 Sold goods for cash. 13000/-
9 Jan 2014 Sold goods to Mahesh. 15000/-
10 Jan 2014 Paid cash to subhash. 8000/-
12 Jan 2014 Received cash from Mahesh. 10000/-
16 Jan 2014 Purchased goods from Ravi for cash. 7500/-
17 Jan 2014 Purchased goods from Ravi. 5000/-
18 Jan 2014 Sold goods to Suresh for cash. 12600/-
19 Jan 2014 Sold goods to Suresh 7000/-
20 Jan 2014 Bought machinery for cash 8000/-
24 Jan 2014 Withdrew cash from office for personal use. 2500/-
27 Jan 2014 Paid Rent 400/-
29Jan 2014 Paid Wages 450/-
30 Jan 2014 Paid salary to Gopal 1200/-
30 Jan 2014 Received commission 200/-

\section*{Groups of Siya Ram.:-}

Capital A/c
Purchase A/c
Sales A/c

Capital A/c.
Purchase A/c.
Sales.
\begin{tabular}{ll} 
Subhash A/c & Sundry Creditors \\
Furniture A/c & Fixed Asset \\
Mahesh A/c & Sundry Debto.rs. \\
Ravi A/c & Sundry Creditors. \\
Suresh A/c & Sundry Debtors. \\
Machinery A/c & Fixed Assets. \\
Drawing A/c & Capital A/c \\
Rent A/c & Indirect Expenses. \\
Wages A/c & Direct Expenses. \\
Salary A/c & Indirect Expenses. \\
Commission A/c & Indirect Income.
\end{tabular}

\section*{Solution 4:-}

1 Jan 2014

By Cash A/c
To Capital A/c (Being started business with cash)

2 Jan 2014

By Purchase A/c
To cash A/c
(Being purchased goods for cash)

4Jan 2014
By Purchase A/c
To Subhash A/c
(Being purchased from subhash)
5Jan 2014
By Furniture A/c
To Cash A/c
(Being purchased Furniture)
7Jan 2014
By Cash A/c Dr. 13000/-
To Sales A/c
Dr. 6000/-
Cr. 6000/-

By Cash A/c
Dr. 12000/-
Cr. 12000/-
(Being sold goods for cash)
9Jan 2014
By Mahesh A/c Dr. 15000/-
To Sales A/c
Cr. 15000/-
(Being sold goods to Mahesh)
10Jan 2014
By Subhash A/c
Dr. 8000/-
To Cash A/c
(Being paid subhash)
12Jan 2014
By Cash A/c Dr. 10000/-
To Mahesh A/c
(Being Cash received from Mahesh)

16Jan 2014
By Purchase A/c
Dr. 7500/-
To Cash A/c
Cr. 7500/-
(Being purchased by cash)
17Jan 2014
By Purchase A/c
Dr. 5000/-
To Ravi A/c
Cr. 5000/-
(Being purchased by Ravi)
18Jan 2014
By Cash A/c Dr. 12600/-
To Sales A/c
Cr. 12600/-
(Being Sold goods for Cash)
19Jan 2014
By Suresh A/c Dr. 7000/-
To Sales A/c
Cr. 7000/-
(Being Sold goods to Suresh)
20Jan 2014
By Machinary A/c Dr. 8000/-
To Cash A/c
Cr. 8000/-
(Being purchased machinery for cash)
24Jan 2014
Drawing A/c Dr 2500/-
To Cash A/c
(Being Withdraw for personal Use)
27Jan 2014
By Rent A/c
Dr. 400/-
To cash A/c
(Being Paid rent)
29Jan 2014
By Wages A/c Dr. 450/-
To cash A/c
Cr. 450/-
(Being Paid wages)
30an 2014
By Salary A/c Dr. 1200/-
To cash A/c
(Being Paid salary)
30an 2014
By CashA/c Dr. 200/-
To Commission A/c Cr.200/-
(Being received commission)

\section*{Example:-5}

Give journal entries for the following transactions in the books of Pratap Rai.

1March 2014 Started business with cash
2March 2014 Cash purchases
3March 2014 Sold goods to Vasudev
6March 2014 Returned defective goods by Vasudev
8March 2014 Received cash from Vasudev and discount allowed
9 March 2014 Chanderkant sold goods to us.
10March 2014 Pritam purchased goods from us.
10March 2014 Paid insurance premium.
12March 2014 Paid for life insurance premium of Pratap Rai 15March 2014 Paid cash to chanderkant. and discount allowed by him.
18March 2014 Bought goods from Pawan, list price 22March 2014 Paid to Pawan.
26March 2014 Received cash from Pritam.
31March 2014 Paid wages Rs.400/-Advertisement expenses
31March 2014 Received Interest
31March 2014 Received Commission

\section*{Groups of Pratap Rai:-}
\begin{tabular}{ll} 
Capital A/c & Capital \\
Purchase A/c & Purchase \\
Vasudev & Sundry debtor. \\
Sales A/c & Sales \\
Sales return A/c & Sales \\
Discount Pd A/c & Indirect expenses \\
Chanderkant A/c & Sundry Creditors \\
Pritam A/c & Sundry debtor. \\
Insurance premium & Indirect Expence. \\
Pawan A/c & Sundry Creditors. \\
Drawing A/c & Capital A/c. \\
Wages A/c & Direct Expence. \\
Advertisement A/c & Indirect Expence. \\
Salary A/c & Indirect Expence. \\
Interest Rec A/c & Indirect Income. \\
Commission Rec A/c & Indirect Income. \\
Discount Rec A/c & Indirect Income.
\end{tabular}

Rs.100000/-
Rs. 48000/-
Rs. 10000/-
Rs. 1000/-
Rs. 8800/-
Rs. 200/-
Rs. 20000/-
Rs. 12000/-
Rs. 500/-
Rs. 2000/-
Rs. 13780/-
Rs. 220/-
Rs. 15000/- less \(10 \%\) T.D.
Rs. 8000/-
Rs. 6000/-
Rs. 250/- and salaries paid
Rs 1500 .
Rs. 100/-
Rs. 600/-

Solution 5:-
1 March 2014
Receipt:-
By Cash A/c Dr. 100000/-
To Capital A/c Cr. 100000/-
(Being started business with cash)
Payment:-
2 March 2014
By Purchase A/c Dr. 48000/-
To cash A/c Cr. 48000/-
(Being cash purchased)

Sale:-
3 March 2014
By Vasudev A/c Dr. 10000/-
To Sales A/c Cr. 10000/-
(Being sold to vasudev)
Credit note:-
6 March 2014
By Sales Return A/c Dr. 1000/-
To Vasudev A/c Cr. 1000/-
(Being return defective sold goods by vasudev)
Receipt:-
8 March 2014
By Cash A/c Dr. 8800/-
By Discount Pd A/c
Dr. 200/-
To Vasudev A/c
Cr. 9000/-
(Being Cash received by Vasudev)
Purchase:-
9 March 2014
By Purchase A/c Dr. 20000/-
To Chanderkant A/c Cr. 20000/-
(Being Purchase goods from chanderkant)
Sale:-
10March 2014
By Pritam A/c Dr 12000/-
To Sales A/c
Cr. 12000/-
(Being sold goods to Pritam)
Payment:-
10March 2014
By Insurance Premium A/c Dr. 500/-
To Cash A/c Cr. 500/-
(Being paid insurance premium)
Payment:-
12March 2014
By Drawing A/c
Dr. 2000/-
To Cash A/c
Cr. 2000/-
(Being paid personal insurance premium)
Payment:-
15March 2014
By Chanderkant A/c Dr. 14000/-
To Cash A/c
To Discount Rec
Cr. 13780/-
Cr. 220/-
(Being paid to chanderkant)
Purchase:-
18March 2014
By Purchase A/c
To Pawan A/c
Dr 13500/-
Cr. 13500/-
(Being Purchase from Pawan)
Payment:-
22 March 2014
By Pawan A/c Dr 8000/To Cash A/c Cr. 8000/-
(Being paid to Pawan)

Receive:-
26 March 2014
By Cash A/c Dr. 6000/-
To Pritam A/c
(Being cash received from Pritam)
Payment:-
31 March 2014
By Wages A/c
Dr. 400/-
By Advertisement A/c
Dr. 250/-
By Salary A/c
Dr. 1500/-
To Cash A/c Cr. 2150/-
(Being paid wages, salary and advertisement)
Receipt:-
31 March 2014
By Cash A/c Dr. 100/-
To Interest rec A/c Cr. 100/-
(Being interest Received)
Receipt:-
31 March 2014
By Cash A/c Dr. 600/-
To Commission rec A/c Cr. 600/-
(Being commission Received)

\section*{Opening Entry: - Most Important}

Every firm starts its new books in the beginning of each year. Since the closing balances of last year have to carried forward to the next year, the first entry in each year's journal will be to record the previous year's closing balances of all the assets and liabilities. As its first entry. It is called the opening entry.
Example:-
Following balances appeared in the books of Gopal on 1 St January 2014.
Assets: - Cash Rs. 8000/-, Bank balance Rs. 20000/-, Debtors Rs 47000/- (Ashok Rs 12000/-
Pawan Rs. 15000/-, Vivek Rs. 20000/-), Machinery Rs. 60000/-, Stock Rs. 54000/-
Liabilities: - Creditors Rs 20000/-(Chaman lal Rs 7000/- , OM Pal Rs 13000/-)
Capital Rs. 200000/-
Receipt Entry
1 Jan 2014 \(\begin{array}{lll}\text { By Cash A/c } & \text { Dr. 8000/- } \\ & \begin{array}{l}\text { By Bank A/c } \\ \text { By Stock A/c }\end{array} & \text { Dr. 20000/- } \\ & \text { Br. 54000/- } \\ & \text { By Ashok A/c } & \text { Dr.12000/- } \\ & \text { By Vivek A/c } & \text { Dr. 15000/- } \\ & \text { By Machinery A/c } & \text { Dr. 20000/- } \\ & \text { Dr. 60000/- } \\ & \text { By Goodwill A/c } & \text { Dr. 31000/- }\end{array}\)
To Chaman Lal Cr. 7000/-
To Om Pal A/c Cr. 13000/-
To Capital A/c Cr. 200000/-
(Being assets and liabilities brought forward)

\section*{Dr. Balance by Goodwill A/c \\ Cr. Balance by Capital A/c}

\section*{Example 6:-}

The following balances appeared in the books of Vishal Stores on 1 St January 2014.
Assets: - Cash Rs. 15000/-, Bank balance Rs. 5000/-, Stock Rs. 40000/-, Furniture Rs. 3600/-, Debtors Rs. 24000/-(X Rs 6000, Y Rs 8000, Z Rs. 10000).

Liabilities: - Bank Loan Rs. 10000/-, Creditors Rs.12500/-(Ajay Rs 5000, Vijay Rs 7500).
2 Jan 2014 Bought goods from Kailash for Rs. 20000/- at a trade discount of \(10 \%\) and cash discount of \(2 \%\) paid \(60 \%\) amount immediately.

4 Jan 2014 Sold goods to x for Rs. 9000/-
5 Jan 2014 Received Rs 14800/- from X in full settlement of his account.
6 Jan 2014 Cash deposited into bank Rs. 10000/-
8 Jan 2014 Cheque received from Y for Rs 7850 in full settlement of his account.This cheque was immediately deposited into bank.

10 Jan 2014 Received a cheque from Z Rs. 2000/-
12 Jan 2014 Cheque received from Z Rs 2000 \& deposited into bank.
15 Jan 2014 Cheque received from Y dishonored.
16 Jan 2014 Cash sales rs. 15000/-Out of his amount Rs 12000/- deposited into bank.
16 Jan 2014 Amount due to Ajay paid by cheque.
18 Jan 2014 Old newspapers sold Rs. 50/-
Old furniture sold Rs. 750/-
20 Jan 2014 Z became insolvent and 40 paise in a rupee could be received from his estate.
22 Jan 2014 Purchased goods from Gopal and paid by cheque Rs. 8000/-
24 Jan 2014 Sold half of the above goods to Chanderkant at a profit of \(30 \%\) on cost.
25 Jan 2014 Proprietor withdrew for private use Rs. 2000/- from office and Rs 3000/- from Bank.
31 Jan 2014 Paid salary to Motilal by cheque rs. 2000/-
31 Jan 2014 Paid rent by cheque Rs. 1500/-
31 Jan 2014 Paid trade expenses Rs. 500/-

\section*{Solution 6:-}

\section*{Vishal Stores:-}

Receipt
1 Jan 2014
Dr \(\quad \mathrm{Cr}\)
By Cash A/c
15000/-
By Bank A/c 5000/-
By Stock A/c 40000/-
By Furniture A/c 3600/-
By X A/c 6000/-

By Y A/c 8000/-
By Z A/c 10000/-
To Bank Loan A/c 10000/-
To Ajay A/c 5000/-
To Vijay A/c 7500/-
To Capital A/c 65100/-
(Being assets and liabilities brought forward)
Payment
2 Jan 2014
\(20000 * 10 \%=2000 \mathrm{TD}\)
\(20000-2000=18000 /-\)
\(18000 * 60 \%=10800 /-\)
10800*2\%=216 Cash Discount.(Indirect Income).
10800-216=10584 Cash Payment.
18000-10800=7200 Rest Amount.
Payment
By Purchase A/c 18000/-
To Cash A/c 10584/-
To Discount Rec A/c 216/-
To Kailash A/c 7200/-
(Being purchase goods \& immediate payment with 2\% CD)
Sale
4 Jan 2014
By X A/c 9000/-
To Sale A/c
9000/-
(Being sold of goods on credit)
Receipt
5 Jan 2014
By Cash A/c 14800/-
By Discount Pd A/c 200/-
To X A/c 15000/-
(Being received amount on full settlement)
Contra
6 Jan 2014
By Bank A/c 10000/-
To Cash A/c
10000/-
(Being cash deposited)
Receipt
8 Jan 2014
By Bank A/c 7850/-
By Discount Pd A/c 150/-
To Y A/c 8000/-
(Being received cheque on full settlement)
Receipt
10 Jan 2014

By Cash A/c
To Z A/c
2000/-
To
(Being received a cheque)
Contra

By Bank A/c 2000/-
To Z A/c
2000/-
(Being cheque deposited into bank)
Payment
15Jan 2014
By Y A/c 8000/-
To Discount Rec A/c 150/-
To Bank A/c
7850/-
(Being cheque is dishonored)
Receipt
16Jan 2014
By Cash A/c 3000/-
By Bank A/c 12000/-
To Sales A/c 15000/-
(Being cash sales)
Payment
16Jan 2014
By Ajay A/c 5000/-
To Bank A/c 5000/-
(Being paid to ajay by cheque)
Receipt
18Jan 2014
By Cash A/c 800/To Miscellaneous Income A/c 50/-
To Old Furniture A/c
750/-
(Being sold old news papers and furniture)

Receipt
20Jan 2014
\(\begin{array}{ll}\text { By Bad Debt A/c } & 3600 /- \\ \text { By Cash A/c } & 2400 /-\end{array}\)
To Z A/c
6000/-
(Being Z become insolvent)
Payment
22Jan 2014
By Purchase A/c 8000/-
To Bank A/c 8000/-
(Being purchased goods \& payment made by cheque)
Sale
24Jan 2014
By chanderkant A/c 5200/-
To Sales A/c 5200/-
(Being sold goods on credit)
Payment
25Jan 2014
By Drawing A/c 5000/-
To Cash A/c 2000/-
To Bank A/c 3000/-
(Being Withdraw for personal use)

Payment
31 Jan 2014
By Salary A/c 2000/-
To Bank A/c 2000/-
(Being paid salary)
Payment
31 Jan 2014
By Rent A/c 1500/-
To Bank A/c 1500/-
(Being paid Rent)
Payment
31 Jan 2014
By Trade Exp A/c 500/-
To Bank A/c 500/-
(Being paid Trade Expences)

\section*{Groups:-}
\begin{tabular}{ll} 
Bank A/c & Bank \\
Stock A/c & Current Asset \\
Furniture A/c & Fixed Asset \\
X A/c & Sundry Debtors \\
Y A/c & Sundry Debtors \\
Z A/c & Sundry Debtors \\
Bank Loan A/c & Loan Liability \\
Ajay A/c & Sundry Creditors \\
Vijay A/c & Sundry Creditors \\
Capital A/c & Capital \\
Purchase A/c & Purchase \\
Sale A/c & Sale \\
Discount rec A/c & Indirect Income \\
Discount Pd A/c & Indirect Expences \\
Miscellaneous Income A/c & Indirect Income \\
Old Furniture A/c & Indirect Income \\
Bad debt A/c & Indirect Expences \\
Kailash A/c & Sundry Creditor \\
Salary A/c & Indirect Expences \\
Rent A/c & Indirect Expences \\
Trade Exp A/c & Indirect Expences \\
Drawing A/c & Capital A/c \\
Chanderkant A/c & Sundry debtors
\end{tabular}

\section*{Example 7:-}

Following balances appeared in the books of Radhika traders.
Assets: - Cash Rs. 8000/-, Cash at bank Rs. 7000/-, Stock Rs. 30000;
Debtors:- Mohan Rs 10000/-,Sohan Rs. 12000/- Dinesh Rs. 14000/-Furniture Rs 5000/Building Rs.25000/-
Liabilities: - Creditors X Rs 5000/-, Y Rs 6000/-

2 Jan 2014 Bought goods of the list price Rs 6000/- from Khanna \& Brothers less \(15 \%\) TD and 2\% cash discount and paid \(40 \%\) price at the same time.
3 Jan 2014 Received a draft from Mohan in full settlement and deposited it into bank. Rs. 9000/-

5 Jan 2014 Purchased goods from Suresh of the list price of Rs 8000/- at \(2 \%\) TD and paid by him cheque.

8 Jan 2014 Sold goods and received a cheque. Rs. 25000/-
10 Jan 2014 Deposited the above cheque into bank.
12 Jan 2014 Sohan deposited in our Bank A/c. Rs. 4000/-
16 Jan 2014 Paid income Tax Rs 5600/-
20 Jan 2014 Received a cheque from Sohan and sent to Bank.
Rs. 7800/-
Discount allowed
Rs. 200/-
21 Jan 2014 Withdrew from bank:For office Rs.2000/-
Private use Rs. 4000/-

23 Jan 2014 Sent a cheque to \(X\) in full settlement of his account. Rs. 4900/-
27 Jan 2014 Cheque of Sohan returned by Bank as dishonoured.
28 Jan 2014 Dinesh was declared insolvent. \& payment of 60 Paise in a rupee received from his estate
31 Jan 2014 Bank allowed interest Rs. 350/-
31 Jan 2014 Paid for rent by cheque
Rs. 1500/-
31 Jan 2014 Paid for traveling expences by cheque
Rs 500/-
Radhika Traders
Receipt
1 Jan 2014
By Cash A/c 8000/
By Bank A/c 7000/-
By Stock A/c 30000/-
By Mohan A/c 10000/-
By Sohan A/c 12000/-
By Dinesh A/c 14000/-
By Furniture A/c 5000/-
By Building A/c 25000/-
To X A/c 5000/-
To Y a/c 6000/-
To Capital A/c 100000/-
(Being Opening of Radhika \& Traders)
Payment
2 Jan 2014
By Purchase A/c 5100/-
To Cash A/c 2000/-
To Discount Rec A/c 40/-
To Khanna Brother A/c 3060/-
(Being Purchased of goods)
Receipt
3 Jan 2014
By Bank A/c 9000/-
By Discount Pd A/c 1000/-
To Mohan A/c 10000/-
Payment
5 Jan 2014
By Purchase A/c 7840/-
To Bank A/c 7840/-

Receipt
8 Jan 2014
By Cash A/c 25000/-
To Sales A/c 25000/-
Contra
10 Jan 2014
By Bank A/c 25000/-
To Cash A/c 25000/-
Receipt
12 Jan 2014
By Bank A/c 4000/-
To Sohan A/c 4000/-
Payment
16 Jan 2014
By Income Tax A/c 5600/-
To CashA/c 5600/-

Receipt
20 Jan 2014
By Bank A/c 7800/-
By Discount A/c 200/-
To Sohan A/c 8000/-
Payment
21 Jan 2014
By Drawing A/c 4000/-
By Office \(\operatorname{expA}\) c 2000/-
To Bank A/c 6000/-
Payment
23 Jan 2014
By X A/c 5000/-
To Bank A/c 4900/-
To Discount Rec A/c 100/-

Payment
27 Jan 2014
By Sohan A/c 8000/-
To Bank A/c 7800/-
To Discount rec A/c 200/-
Receipt
28 Jan 2014
By Cash A/c 8400/-
By Bad Debt A/c 5600/-
To Dinesh A/c 14000/-

Receipt
31 Jan 2014
By Bank A/c 350/-
To Interest Rec A/c 350/-
Payment
31 Jan 2014
By Rent A/c 1500/-
To Bank A/c 1500/-

Payment
31 Jan 2014
By Travelling Exp A/c
To Bank A/c
500/-
500/-

Group of Radhika Traders:-
\begin{tabular}{ll} 
Cash A/c & Cash in Hand \\
Bank A/c & Bank \\
Stock A/c & Current Asset \\
Mohan A/c & Sundry Debtor \\
Sohan A/c & Sundry Debtor \\
Dinesh A/c & Sundry Debtor \\
Furniture A/c & Fixed Asset \\
Building A/c & Fixed Asset \\
X A/c & Sundry creditor \\
Y A/c & Sundry creditor \\
Sales A/c & Sales \\
Purchase A/c & Purchase \\
Khanna A/c & Sundry creditor \\
Discount Rec A/c & Indirect Income \\
Discount Pd A/c & Indirect Expences \\
Suresh A/c & Sundry Creditor \\
Drawing A/c & Current Liability \\
Bad debt A/c & Indirect Expences \\
Income tax A/c & Indirect expenses \\
Rent A/c & Indirect expenses \\
Traveling Exp & Indirect expenses \\
Interest Rec A/c & Indirect Income \\
Office exp A/c & Indirect Expences
\end{tabular}

\section*{Example 8:-}

Following was the position of Harish
1 Jan 2014 Cash in Hand Rs 10000/-, Cash at Bank Rs 16800/-, Furniture Rs 8000/-, Stock Rs. 50000/-, Debtors (Ram rs 8000/-, Shyam Rs 12000/-), Creditors (Anil Rs 4000/-, Sunil rs 5000/-).
2 Jan 2014 Received a cheque from ram in full settlement of his account after deducting 5\% cash discount.
4 Jan 2014 Deposited the above cheque into bank.
5 Jan 2014 Goods purchased for 20000/- at \(10 \%\) TD and 5\% CD payment made by cheque.

6 Jan 2014 Received a cheque from Shyam for Rs 3860/- and discount allowed to him Rs 140/cheque deposited into bank on the same day.
10 Jan 2014 Cash paid to Anil after deducting 2\% CD.
15 Jan 2014 Old furniture sold for Rs 800/-
16 Jan 2014 Sold goods to shiv Prashad the list price of Rs 10000/- at TD 15\%
18 Jan 2014 Shiv prashad returned goods of the list price of Rs 1000/-
20 Jan 2014 Paid for furniture repair to Bahadur Singh Rs 100/-
25 Jan 2014 Received a cheque from Shiv prashad after deducting 4\% CD. Cheque was deposited into bank.
28 Jan 2014 Bank charged Rs 50/- for bank charges.
31 Jan 2014 Received Commission Rs. 200/-

\section*{Group of Radhika Traders:-}
\begin{tabular}{ll} 
Capital A/c & Capital \\
Bank A/c & Bank \\
Stock A/c & Current Assets \\
Mohan A/c & Sundry Debtors \\
Sohan A/c & Sundry Debtors \\
Dinesh A/c & Sundry debtors \\
Furniture A/c & Fixed Assets \\
Building A/c & Fixed Assets \\
X A/c & Sundry creditors \\
Y A/c & Sundry creditors
\end{tabular}

Purchase A/c
Khanna \& Brothers A/c
Discount Rec A/c
Discount Pd A/c
Sale A/c
Income tax \(\mathrm{A} / \mathrm{c}\)
Drawing A/c
Office Exp A/c
Bad debt A/c
Interest Rec A/c
Rent Pd A/c
Traveling Expences A/c
Goodwill A/c
Receipt
Opening Entry:- Dr
By Cash A/c 8000/-
By Bank A/c 7000/-
By Stock A/c 30000/-
By Mohan A/c 10000/-
By Sohan A/c 12000/-
By Dinesh A/c 14000/-
By Furniture A/c 5000/-
By Building A/c 25000/-
\begin{tabular}{ll} 
To X A/c & \(5000 /-\) \\
To Y a/c & \(6000 /-\) \\
To Capital A/c & \(100000 /-\)
\end{tabular}

\section*{Group of Harish:-}

Capital A/c
Bank A/c
Furniture A/c
Stock A/c
Ram A/c
Shyam A/c
Anil A/c
Sunil A/C
Discount A/c
Purchase A/c
Sale A/c
Discount Rec A/c
Old Furniture A/c
Shiv Prashad A/c
Purchase return A/c
Sales return A/c

Capital.
Bank.
Fixed assets.
Current Asset.
Sundry debtors.
Sundry Debtors.
Sundry creditors.
Sundry Creditors.
Indirect Expences.
Purchase A/c.
Sale.
Indirect Income.
Indirect Income.
Sundry Debtors.
Purchase.
Sale.


\section*{Inventory/Stock:-}

\section*{DEFINITION OF 'INVENTORY:-}

The raw materials, work-in-process goods and completely finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company's shareholders/owners.

\section*{STOCK GROUP:-}

Hardware \(\rightarrow \mathrm{H} / \mathrm{W}\)
Software \(\rightarrow\) S/W
Furniture
Measurement Unit \(\rightarrow\) PCS/Qty
Sales
Purchase
Sales Return
Purchase Return
Sundry Creditors
Sundry Debtors
Step1:-Creation of Company \(\rightarrow\) (Account with Inventory)
Step2:-Creation of Account group
(Say Sales A/c, Sales return A/c, Purchase A/c, Purchase return a/c
Pravesh A/c(Sundry Debtor), Khanna \& Sons A/c (Sundry Creditors),
Capital A/c, Goods A/c)
Step3:-Inventory Group
\begin{tabular}{ll} 
Hardware & \(\mathrm{H} / \mathrm{w}\) \\
Software & \(\mathrm{S} / \mathrm{w}\) \\
Furniture &
\end{tabular}

Step4:-Measurement unit \(\rightarrow\) (PCS, Qty).
Step5:- Voucher feeding.
Note: - Sales Return \(\quad \rightarrow \quad\) Journal (Ledger Adjustment).
Sales Return for Cash \(\rightarrow\) Payment (Ledger Voucher).
Purchase return A/c \(\quad \rightarrow \quad\) Journal (Ledger Adjustment).
Purchase return for cash \(\quad \rightarrow \quad\) Receipt (Ledger Voucher).
Sales \(\quad \rightarrow \quad\) Must Decrease stock.
Purchase \(\rightarrow \quad\) Must Increase stock.
Check Stock \(\quad \rightarrow \quad\) Stock Summary.

\section*{What it is VAT:}

A value added tax (VAT) is a consumption tax added to a product's sales price. It represents a tax on the "value added" to the product throughout its production process.
Example:-
Take, for example, a pencil. A pencil is made of four parts: graphite, wood, rubber (eraser) and the weird metal thing that holds the eraser on.
Value Added Tax:-
It works with two terms
1) Input credit receivable; on purchases a company made
2) Output credit payable; on sales.

The Company who is register for VAT will pay the VAT ie Output Credit (Vat) collected from sales less with input credit(VAT) paid on purchases.
Check for local Govt gazette for rates, dates for payment of vat.
Any Income should include VAT on its invoice, once the comapny or firm is registered for it!!! It can be calculated on at different \%'s
Note:-VAT charged under such circumstances is usually refundable.
- Current VAT declared by Govt of India for all states are \(1 \%, 4 \%\) and \(12.5 \%\).

\section*{Ledger:-}

It is the books of accounts, and in this book that all the business transactions would ultimately find their place under their accounts in a duly classified form.
\begin{tabular}{|l|l|l|l|l|l|l|l|c|}
\hline \multicolumn{10}{|c|}{ Proforma of Ledger:- } \\
\hline Date & Particular & JF & Amount & Date & Particular & JF & Amount \\
\hline & & & Dr. & Cr. & & & & Dr. \\
\hline & & & & & & & Cr. \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}

\section*{Rules of Posting intoLedger:-}
\[
\begin{array}{cc}
\text { By } & \text { Dr. } \\
\text { To } & \text { Cr. }
\end{array}
\]

\section*{Three Golden Rules of \(\mathbf{A} / \mathbf{C}\)}

Personal Accounting :
Real Accounting
Debit the Receiver, Credit the Giver.
Debit what comes in, Credit what goes out.
Debit all Expenses and Losses, Credit all.
Incomes and Gains.

\section*{Trial balance:-}

When posting of all the transactions into the ledger is completed and the accounts are
balanced off,It becomes necessary to check the arithmetical accuracy of the accounting works. Or
According to Carter,'"Trial balance is the list of debit and credit balances, taken out from ledger.It includes the balances of cash and bank taken from cash books.

\section*{Objective:-}
* To help in locating errors.
* To help in preparation of final accounts.
- Trading A/c (Gross Profit/Gross Loss).
- P/L Account (Profit/Loss Account).
- Balance Sheet (Assets and liability statement).
* To obtain summary of the ledger accounts.

\section*{Preparation of trial Balance:-}
* Balance Method.
* Total Amount Method.
* Total-cum Balance Method.

\section*{Balance Method:-}

According this method all the accounts showing debit balances in the ledger are put on debit side of ledger balance and account showing credit balances are put on its credit side. Trial balances are totaled and if the total is equal, it is said that the trial balance has tallied.
\begin{tabular}{|l|l|l|c|c|c|l|l|c|}
\hline \multicolumn{2}{|c|}{ Capital } \\
\hline Date & Particular & LF & Amount & Date & Particular & LF & Amount \\
\hline & & & Dr. & Cr. & & & & Dr. \\
\hline & & & & & & & Cr. \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|c|}
\hline \multicolumn{2}{|c|}{ Purchase Account } \\
\hline Date & Particular & LF & Amount & Date & Particular & LF & Amount \\
\hline & & & Dr. & Cr. & & & & Dr. \\
\hline & & & & & & & Cr. \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|c|c|l|l|l|c|}
\hline \multicolumn{11}{|c|}{ Sundry Creditors A/c } \\
\hline Date & Particular & LF & Amount & Date & Particular & LF & Amount \\
\hline & & & Dr. & Cr. & & & & \\
\hline & & & & & & & Dr. & Cr. \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|c|}
\hline \multicolumn{10}{|c|}{ Sundry Debtors A/c } \\
\hline Date & Particular & LF & Amount & Date & Particular & LF & Amount \\
\hline & & & Dr. & Cr. & & & & Dr. & Cr. \\
\hline & & & & & & & & & \\
\hline & & & & & & & & & \\
\hline & & & & & & & & & \\
\hline & & & & & & & & \\
\hline & & & & & & & & & \\
\hline & & & & & & & & & \\
\hline
\end{tabular}

\section*{Total Amount Method:-}

Under this Method, total amount of debit side of each ledger account is put on the debit side of the trial balance and total amount of credit side of each ledger account is put on the credit side of trial balance.

Format
\begin{tabular}{|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Name Of \\
Account
\end{tabular} & \begin{tabular}{c} 
L \\
F
\end{tabular} & \begin{tabular}{c} 
Total of Debit \\
Items
\end{tabular} & \begin{tabular}{c} 
Name Of \\
Account
\end{tabular} & \begin{tabular}{c} 
L \\
F
\end{tabular} & \begin{tabular}{c} 
Total of Credit \\
Items
\end{tabular} \\
\hline & & & & & \\
\hline & & & & & \\
\hline & & & & & \\
\hline & & & & \\
\hline
\end{tabular}

\section*{Total cum Balance Method:-}

Under this method accountant, check numerical accuracy by using above both technique.

\section*{Types of Error:-}
* Wrong casting.
* Posting of the wrong side.
* Posting of wrong amount.
* Errors of commission.
* Error of principle.

\section*{Final Account:-}
* Trading Account(Give gross profit and gross loss) \(\rightarrow\) Direct Expenses \& Gain.
* P/L Account(Give Net profit and Net loss) \(\rightarrow\) Indirect Expenses \& Gain.
* Balance Sheet Statement(Statement of Assets \& Liabilities).

Trading Account (Give gross profit and gross loss) Show all Direct expenses \& Income:-
It is an income statement prepared with cost of raw materials, purchases, \& direct expences(expences on acquiring goods)with a view to ascertain gross profit or gross loss is known as trading account.
Gross profit=Net Sales-Cost of goods sold.
Net Sales=sales-Sales return.
Cost of goods sold=Opening Stock+Purchase+Direct Expences-Closing Stock.

\section*{Form Of Trading A/c:-}
\begin{tabular}{|c|c|c|c|}
\hline Particular & Amount & Particular & Amount \\
\hline To Openıng Stock & --- & By Sale & --- \\
\hline To Purchases & --- & Less Sales return & \\
\hline Less return & & By Closing stock & --- \\
\hline Or & & & \\
\hline Return Outward & & By Gross Loss & --- \\
\hline To Wages & --- & & \\
\hline To Wages \& Salaries & --- & & \\
\hline To Carriage & --- & & \\
\hline To Gas, Fuel \& Power & & & \\
\hline To Freight & --- & & \\
\hline To Manufacturing exp & --- & & \\
\hline To Factory expences & --- & & \\
\hline To Royalty & --- & & \\
\hline To Dock charges. or Clearing Charges. & --- & & \\
\hline To Gross Profit. Transferred To P/L A/c & & & \\
\hline & & & \\
\hline
\end{tabular}

\section*{P/L Account (Give Net profit and Net loss) Show all Indirect expenses \& Income:-}
"A profit \& loss account is an account into which all gains and losses are collected, in order to ascertain the excess of gains over the losses or vice versa."

Or
Profit and loss statements, also known as income statements or statements of financial performance, are a summary of the income and expenses of a business that determine the profit made in a given time period. Profit and loss statements are usually performed periodically, either annually, quarterly or monthly.

\section*{Need and importance:-}
* To ascertain in the net profit or net loss.
* Comparison with previous year profit.
* Control on expences.
* Helpful in preparation of balance sheet.


\section*{Format of Profit and Loss A/c:-}
\begin{tabular}{|c|c|c|c|}
\hline Particulars & Amount & Particulars & Amount \\
\hline To gross loss & & By Gross profit & \\
\hline (Transfer from trading A/c) & --- & (Transfer from trading A/c) & \\
\hline To salaries & --- & By Rent of tenant & --- \\
\hline To Rent, Taxes & --- & By Discount Rec & --- \\
\hline To Printing \& Stationary & --- & By interest On Investment & --- \\
\hline To Postage \& Telegrams & --- & By Dividend on Shares & --- \\
\hline To Lighting & --- & By Bad debt recovered & --- \\
\hline To Insurance Premium & --- & By Profit on sale of assets & --- \\
\hline To Telephone Charges & --- & By Income from other resources & --- \\
\hline To Audit Fees & --- & By Miscellaneous repair & --- \\
\hline To Traveling exp & --- & By Net loss & --- \\
\hline To Establishment exp & --- & (Transferred to capital A/c) & \\
\hline To General exp & --- & & \\
\hline To Advertisment Exp & --- & & \\
\hline To Commission Pd & --- & & \\
\hline To Brokerage & --- & & \\
\hline To Export duty & --- & & \\
\hline To Bad debts & --- & & \\
\hline To Sales tax & --- & & \\
\hline To Discount Pd & --- & & \\
\hline To Repairs & --- & & \\
\hline To Bank charges & --- & & \\
\hline To Entertainment expences & --- & & \\
\hline To Donation \& Charity & --- & & \\
\hline To Loss of sales of assets & --- & & \\
\hline \begin{tabular}{l}
To net profit- \\
Transferred To capital A/c
\end{tabular} & & & \\
\hline
\end{tabular}

\section*{Posting:-( Journal)}

1:- Accounts of various items of expences and losses are transferred to the debit side of P/L a/c.
By Profit \& Loss A/c Dr.
To Salaries A/c Cr
To Rent A/c Cr
To Printing \& Stationary A/c Cr
To General Expences \(\quad \mathrm{Cr}\)
To Postage \& Telegrams Cr
To Electricity Bill A/c Cr
To Telephone Bill A/c Cr

2:- Balances of all accounts of incomes and gains will be transferred to the credit side of P/L.
By Interest Rec A/c
Dr.
By Commission Rec A/c
Dr.
By Rent Rec A/c Dr.
By Dividend Rec A/c Dr.
To P/LA/c
Cr.

\section*{By P/L A/c}

To Capital A/c
4:- Transfer of Debit balance of P/L A/c
By Capital A/c
To P/L A/c
Dr.

Dr.
Cr.

\section*{Provisions and Reserves:-}

\section*{Provisions:-}

The amount retained by way of providing for any known liability of which the amount can be determined with substantial accuracy.

Or
The amount written off or retained by the way of providing for depreciation, renewals in value of assets.

\section*{Example of Provisions:-}
* Provisions for depreciation of assets.
* Provisions for taxations.
* Provisions for bad debts and doubtful debts.
* Provisions for discount on Debtors.
* Provisions for repairs and renewals.

\section*{Purpose of Provision:-}
* Provision is made to meet a known liability.
* The liability is known but the amount of such liability cannot be determined with reasonable accountancy.
* Provision is a charge against profit.

\section*{Reserves:-}

Reserves mean amount set aside out of profits and other surpluses to meet future uncertanity.
Importance of Reserves:-
* Helpful in meeting the unforeseen liability or loss.
* To provide funds for meeting a specific liability.
* Helpful in strengthening the financial position of business.

\section*{Types of reserves:-}
* Revenue Reserves
- General reserves:-The business man do not withdraw the entire profits from the business but retain a part of it in the business to meet unforeseen future uncertainties.
- Specific reserves:-Such a reserve is created for a specific purpose and can be utilised only for that purpose.
Example:-Dividends, Replacement of assets.
* Capital reserves:-

Such reserves are not distributed among shareholders of company.
Example:-
- Profit on sale of fixed asset.
- Profits on the revaluation of fixed assets and liabilities.
- Profit on the purchase of running business.
- Profit on redemption of debentures.

\section*{Balance Sheet (Assets and liability statement):-}

The balance sheet is a statement prepared with a view to measure the exact financial position of a business on a certain fixed date.It is a mirror of Business. It is not an account.

Format of c:-
\begin{tabular}{|c|c|c|}
\hline Liabilities & Amount & Assets Amounts \\
\hline Current Liabilities & & Current Assets \\
\hline Bank overdraft. & & Cash in hand. \\
\hline Bills Payable. & & Cash at Bank. \\
\hline Sundry creditors. & & Short Term Investment. \\
\hline Outstanding Expences. & & Sundry debtors. \\
\hline Unearned Income. & & Prepaid Expanses. \\
\hline Fixed Liabilities & & Accrued Income. \\
\hline Long Term Loans. & & Long term Investment \\
\hline Reseves & & Fixed Assets \\
\hline Add: Net Profit. & & Furniture. \\
\hline Less: Drawing. & & Motor Vehicles. \\
\hline Less: Income tax. & & Lands \& Building. \\
\hline Less: Life Insurance Premium. & & \begin{tabular}{l}
Patents. \\
Goodwill.
\end{tabular} \\
\hline
\end{tabular}



\section*{Category of Entry:-}

\section*{Memos Entry:-}

It is non-accounting voucher, which does not effect accounting statements like P/L accounts; trading accounts etc.It is a note types voucher entry. It will be when voucher posting is suspense.

\section*{Journal Entry:-}

It is used for ledger adjustments like sales return, purchase return, Goods withdraw for personal use, Loss of goods by fire, loss of goods by theft etc.

\section*{Contra Entry:-}

When fund transfer case .Such as Cash deposit into bank, Cash withdraw from bank.

\section*{Payment Entry:-}

When payment made by cash, partial payments after purchase, Salary paid,rent Paid,Wages paid,Cash drew for personal use etc.

\section*{Receipt Entry:-}

When receipt made by cash, partial receipt after sales, Commission received, Discount received, Opening entery, Commencement of business etc.
Alter:-
Editing of related information of accounts.
Alt \(+\mathrm{d} \quad \rightarrow \quad\) Delete Voucher from display.
Alt \(+\mathrm{g} \quad \rightarrow \quad\) Delete group.
\(\mathrm{Ctrl}+\mathrm{N} \quad \rightarrow \quad\) Activate calculator.
\(\mathrm{Ctrl}+\mathrm{M} \quad \rightarrow \quad\) Activate Gateway of Tally.
Alt + F1 \(\rightarrow \quad\) Select Company.
Alt + F3 \(\quad \rightarrow \quad\) Change company Information.
F4 \(\quad \rightarrow \quad\) Backup of accounts.
Alt \(+\mathrm{F} 4 \quad \rightarrow \quad\) Restore Backup accounts.
F2 \(\quad \rightarrow \quad\) Date Change.
Alt + F2 \(\quad \rightarrow \quad\) Change Period.
Alt \(+\mathrm{A} \quad \rightarrow \quad\) Add a voucher.
Alt \(+\mathrm{E} \quad \rightarrow \quad\) Export tally data.
Alt \(+\mathrm{I} \quad \rightarrow \quad\) Insert a voucher.
Alt \(+\mathrm{X} \quad \rightarrow \quad\) Cancel a voucher.

\section*{How to delete Company:-}

Step 1:- Choose code of Company.
Step 2:- Open Tally folder from drive.
Step 3:- Select code Folder and Press Delete Button.

\section*{A Note on GST}
1. GST (Goods \& Services Tax) is a single tax on the supply of goods and services, right from the manufacturer to the consumer. The final consumer will thus bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages. GST has been envisaged as a more efficient tax system, neutral in its application and distributionally attractive.

\section*{At the Central level, the following taxes will be subsumed:}
a. Central Excise Duty, b. Additional Excise Duty, c. Service Tax, d. Additional Customs Duty commonly known as Countervailing Duty, and e. Special Additional Duty of Customs.

\section*{At the State level, the following taxes will be subsumed:}
a. State Value Added Tax/Sales Tax, b. Entertainment Tax (other than the tax levied by the local bodies), Central Sales Tax (levied by the Centre and collected by the States), c. Octroi and Entry tax, d. Purchase Tax, e. Luxury tax, and f. Taxes on lottery, betting and gambling.
2. Keeping in mind the federal structure of India, there will be two components of GST Central GST (CGST) and State GST (SGST). Both Centre and States will simultaneously levy GST across the value chain. Tax will be levied on every supply of goods and services. Centre would levy and collect Central Goods and Services Tax (CGST), and States would levy and collect the State Goods and Services Tax (SGST) on all transactions within a State. The input tax credit of CGST would be available for discharging the CGST liability on the output at each stage. Similarly, the credit of SGST paid on inputs would be allowed for paying the SGST on output. No cross utilization of credit would be permitted.
3. For the implementation of GST in the country, the Central and State Governments have jointly registered Goods and Services Tax Network (GSTN) as a not-for-profit, non-Government Company to provide shared IT infrastructure and services to Central and State Governments, tax payers and other stakeholders. The key objectives of GSTN are to provide a standard and uniform interface to the taxpayers, and shared infrastructure and services to Central and State/UT governments. GSTN is working on developing a state-of-the-art comprehensive IT infrastructure including the common GST portal providing frontend services of registration, returns and payments to all taxpayers, as well as the backend IT modules for certain States that include
processing of returns, registrations, audits, assessments, appeals, etc. All States, accounting authorities, RBI and banks, are also preparing their IT infrastructure for the administration of GST. There would be no manual filing of returns. All taxes can also be paid online. All mismatched returns would be auto generated, and there would be no need for manual interventions. Most returns would be self-assessed.

\section*{4. The main features of the proposed registration procedures under GST will be as follows:}
i. Existing dealers: Existing VAT/Central excise/Service Tax payers will not have to apply afresh for registration under GST.
ii. New dealers: Single application to be filed online for registration under GST.
iii. The registration number will be PAN based and will serve the purpose for Centre and State.
iv. Unified application to both tax authorities.
v. Each dealer to be given unique ID GSTIN.
vi. Deemed approval within three days. vii. Post registration verification in risk based cases only.

\section*{5. The main features of the proposed returns filing procedures under GST will be as follows:}
a. Common return would serve the purpose of both Centre and State Government.
b. There are eight forms provided for in the GST business processes for filing for returns.

Most of the average tax payers would be using only four forms for filing their returns. These are return for supplies, return for purchases, monthly returns and annual return.
c. Small taxpayers who have opted composition scheme shall have to file return on quarterly basis.
d. Filing of returns shall be completely online. All taxes can also be paid online.
6. The main features of the proposed payments procedures under GST will be as follows:
i. Electronic payment process- no generation of paper at any stage
ii. Single point interface for challan generation- GSTN 12
iii. Ease of payment - payment can be made through online banking, Credit Card/Debit Card, NEFT/RTGS and through cheque/cash at the bank.
iv. Common challan form with auto-population features
v. Use of single challan and single payment instrument
vi. Common set of authorized banks
vii. Common Accounting Codes

\section*{7. Establishment of Legal Framework will be as follows:-}
i. Passage of the Constitution Amendment Bill from Parliament: First week of August 2016
ii. Ratification by \(50 \%\) States
iii. Presidential Assent of Constitution Amendment and notification in official Gazette
iv. Cabinet Approval for Formation of GST Council
v. Recommendation of Model GST laws by GST Council
vi. Cabinet Approval for the CGST and IGST laws by Centre and for SGST laws by ALL states
Passage of CGST and IGST laws in the Centre and passage of SGST laws in ALL states:
Winter Session 2016 \& Notification of GST Rules

\section*{8. Preparation of IT Infrastructure will be as follows:-}
i. Goods and Services Tax Network (GSTN): Not-for-profit, non Government Company set up by Centre and States to provide shared IT infrastructure and services to Central and State Governments, tax payers and other stakeholders.
ii. Frontend Processes: Common modules for registration, returns and payments being developed by GSTN.
iii. Backend Processes: Modules for backend processes of tax authorities such as processing registration/returns, assessments, audit, appeals, etc.
iv. Development of GST Frontend and Backend for 17 States by GSTN: End December 2016
v. CBEC's Backend systems: End November 2016
vi. Backend systems of 14 States: End November 2016
vii. Backend systems of Pr. CCA, Banks, RBI \& State accounting authorities: End November 2016
viii. Testing and integration of GST Frontend and backend of all stakeholders: Jan - March 2017

\section*{9. Returns will be filed as follows:-}
i. Common return would serve the purpose of both Centre and State Government.
ii. Most average tax payers would be using only four forms for filing their returns. These are return for supplies, return for purchases, monthly returns and annual return.
iii. Small taxpayers: Small taxpayers who have opted composition scheme shall have to file return on quarterly basis.
iv. Filing of returns shall be completely online.
v. All taxes can also be paid online.

\section*{10. GST Council}

The GST Council will consist of: (a) the Union Finance Minister (as Chairman), (b) the Union Minister of State in charge of Revenue or Finance, and (c) the Minister in charge of Finance or Taxation or any other Minister, nominated by each state government. All decisions of the GST Council will be made by three fourth majority of the votes cast; the centre shall have one-third of the votes cast, and the states together shall have two-third of the votes cast. The GST Council will make recommendations on:
(a) taxes, cesses, and surcharges to be subsumed under the GST;
(b) goods and services which may be subject to, or exempt from GST;
(c) the threshold limit of turnover for application of GST;
(d) rates of GST;
(e) model GST laws, principles of levy, apportionment of IGST and principles related to place of supply;
(f) special provisions with respect to the eight north eastern states, Himachal Pradesh, Jammu and Kashmir, and Uttarakhand; and related matters.

The GST Council may decide the mechanism for resolving disputes arising out of its recommendations. Parliament may by law, provide for compensation to states for revenue losses arising out of the implementation of GST, based on the recommendations of the GST Council. Such compensation could be for a maximum of five years.

\section*{11. Revenue Neutral Rate}

A Committee headed by the Chief Economic Adviser Dr. Arvind Subramanian on Possible Tax rates under GST submitted its Report to the Finance Minister. The Committee in its concluding observations has stated that this is a historic opportunity for India to implement a
game-changing tax reform. Domestically, it will help improve governance, strengthen tax institutions, facilitate "Make in India by Making One India," and impart buoyancy to the tax base. It will also set the global standard for a value-added tax (VAT) in large federal systems in the years to come.

Following are the highlights of Report:

The GST has been an initiative that has commanded broad consensus across the political spectrum. It has also been a model of cooperative federalism in practice with the Centre and states coming together as partners in embracing growth and employment-enhancing reforms. It is a reform that is long awaited and its implementation will validate expectations of important government actions and effective political will that have, to some extent, already been "priced in."

Getting the design of the GST right is, therefore, critical. Specifically, the GST should aim at tax rates that protect revenue, simplify administration, encourage compliance, avoid adding to inflationary pressures, and keep India in the range of countries with reasonable levels of indirect taxes.

Summary of Recommended Rate Options (in percent)
\begin{tabular}{lllll} 
RNR & \begin{tabular}{l} 
Rate on \\
precious \\
metals
\end{tabular} & \begin{tabular}{l} 
"Low" rate \\
(goods)
\end{tabular} & \begin{tabular}{l} 
"Standard" \\
rate \\
(goods and \\
services)
\end{tabular} & \begin{tabular}{l} 
"High/Demerit" rateor Non- \\
GST excise (goods)
\end{tabular} \\
Preferred & 15 & 6 & 12 & 16.9
\end{tabular}

All rates are the sum of rates at centre and states

The Committee's recommendations on rates summarized in the table above are all national rates, comprising the sum of Central and State GST rates. How these combined rates are allocated between the Centre and States will be determined by the GST Council. This allocation
must reflect the revenue requirements of the Centre and States so that revenues are protected. For example, a standard rate of \(17 \%\) would lead to rates at the Centre and States of say 8 percent and 9 percent, respectively. The Committee considers that there are sound reasons not to provide for an administration-complicating "band" of rates, especially given the considerable flexibility and autonomy that states will preserve under the GST (including the ability to tax petroleum, alcohol, and other goods and services).

Implementing the GST will lead to some uncharted waters, especially in relation to services taxation by the States. Preliminary analysis in this report indicates that there should not be large shifts in the tax base in moving to the GST, implying that overall compensation may not be large. Nevertheless, fair, transparent, and credible compensation will create the conditions for effective implementation by the States and for engendering trust between the Centre and States. The GST also represents a historic opportunity to Make in India by Making One India. Eliminating all taxes on inter-State trade (including the 1 percent additional duty) and replacing them by one GST will be critical to achieving this objective.

\section*{TRAINING MATERIAL \\ \& \\ TALLY MODEL COMPANY}

\section*{Basic Principles of Accounting : -}

\section*{Guidelines on Basic Accounting Principles and Concepts}

GAAP (Generally Accepted Accounting Principles) is the framework, rules and guidelines of the financial accounting profession with a purpose of standardizing the accounting concepts, principles and procedures.
Here are the basic accounting principles and concepts under this framework:

\section*{1. Business Entity}

A business is considered a separate entity from the owner(s) and should be treated separately. Any personal transactions of its owner should not be recorded in the business accounting book, vice versa. Unless the owner's personal transaction involves adding and/or withdrawing resources from the business.

\section*{2. Going Concern}

It assumes that an entity will continue to operate indefinitely. In this basis, assets are recorded based on their original cost and not on market value. Assets are assumed to be used for an indefinite period of time and not intended to be sold immediately.

\section*{3. Monetary Unit}

The business financial transactions recorded and reported should be in monetary unit, such as INR,US Dollar, Canadian Dollar, Euro, etc. Thus, any non-financial or non-monetary information that cannot be measured in a monetary unit are not recorded in the accounting books, but instead, a memorandum will be used.

\section*{4. Historical Cost}

All business resources acquired should be valued and recorded based on the actual cash equivalent or original cost of acquisition, not the prevailing market value or future value. Exception to the rule is when the business is in the process of closure and liquidation.

\section*{5. Matching Concept}

This principle requires that revenue recorded, in a given accounting period, should have an equivalent expense recorded, in order to show the true profit of the business.

\section*{6. Accounting Period}

This principle entails a business to complete the whole accounting process of a business over a specific operating time period. It may be monthly, quarterly or annually. For annual accounting period, it may follow a Calendar or Fiscal Year.

\section*{7. Conservatism}

This principle states that given two options in the valuation of business transactions, the amount recorded should be the lower rather than the higher value.

\section*{8. Consistency}

This principle ensures consistency in the accounting procedures used by the business entity from one accounting period to the next. It allows fair comparison of financial information between two accounting periods.

\section*{9. Materiality}

Ideally, business transactions that may affect the decision of a user of financial information are considered important or material, thus, must be reported properly. This principle allows errors or violations of accounting valuation involving immaterial and small amount of recorded business transaction.

\section*{10. Objectivity}

This principle requires recorded business transactions should have some form of impartial supporting evidence or documentation. Also, it entails that bookkeeping and financial recording should be performed with independence, that's free of bias and prejudice.

\title{
Golden Rules of Accounting :-
}

A] Real Accounts:-
1)Debit what comes in.
2)Credit what goes out.

\section*{B] Personal Accounts :-}
1)Debit the reciver.
2)Credit the giver.

\section*{C] Nominal Accounts :-}
1)Debit all expenses \& Losses.
2)Credit all Incomes \& Revenue.

\section*{FIRST SCREEN :-}

Tally ERP Icon.


Please double Click on Tally ERP9 Icon or select and press enter on Tally ERP9 Icon to start the Tally ERP Program

\section*{SELECT COMPANY:-}

\section*{Main Screen}


Enter on Select or Press " \(S\) " to open the desired company.

CHOOSE COMPANY :-


Choose the Relevant company from the list and press enter.

GATEWAY OF TALLY :-


At this screen, it can be seen as to which company is open, period of operation, current date and the date of last entry.

\section*{CHANGE ACCOUNTING PERIOD :-}


Press "Alt-F2" to change the period for which accounting is to be done.

ALTER COMPANY/ CREATE NEW COMPANY :-


After pressing "Alt-F3", the company info screen is displayed, in which options for Altering company master data, backup etc are seen (Alter).

\section*{RECORDING OF OPENING BALANCES :-}

\section*{PATH : At Gateway of Tally}

Accounts Info \(\rightarrow\) Ledger \(\rightarrow\) Alter \(\rightarrow\) Cash in Hand.


The opening Balances of all Balance Sheet items can be recorded by selecting the ledgers.

\section*{ENTER THE OPENING BALANCE AMOUNT :-}


The Opening Balance as on 01-04-2013 can be feeded for all ledgers and it should be ensured that there is no difference in opening Balance in Tally.

\section*{PATH : Accounts info \(\rightarrow\) Ledger \(\rightarrow\) Alter \(\rightarrow\) DCC BANK}


\section*{ENTERING THE OPENING BALANCE AMOUNT :-}


The Closing balance as on 31.03.2013 as per audited statement of accounts can be recorded as opening balance as on 01.04.2013.

\section*{FOR MAKING ACCOUNTING ENTRIES}

\section*{Select Accounting Vouchers}


\section*{SELECT THE PROPER KEY AS PER REQUIREMENT :-}
i) F4 - Contra : For any Deposit/Withdrawal of Cash from Bank. (Only Cash/Bank A/c are Debited / Credited in Contra entries.)
ii) F5 - Payment: For any Payment made weather cash /Cheque entry should be passed through Payment entry. (Only Cash/Bank A/c are Credited in Payment entry.)
iii) F6 - Receipt: For any Receipt weather in cash /Cheque entry should be passed through Receipt entry. (Only Cash/Bank A/c are Debited in receipt entry.)
iv) F7 - Journal : Other than Cash/Bank any entry can be passed through Journal entry. (Transactions where No Cash/Bank A/c are affected should be passed through Journal e.g. Year end Provisions entries).
v) F8 \& F9 - Sales \& Purchase Entries: For Trading Activities i.e Purchase \& Sales of Goods, Entries should be passed through this keys.

\section*{SELECT F6 KEY FOR RECEIPT ENTRY : -}

MAIN MARKET FEES RECEIPT.


For recording of any transactions, Rules of Accounting should be followed. E.g. At the time of recording Market receipt (Income) Nominal Accounts rules i.e. Credit the Incomes and Revenues.( Please refer above screen).

Summary of Transactions Should be mentioned in Narration Part.

In the above entry, please provide the details of Cheque Number, Name of the Bank, Branch etc which will facilitate Bank Reconciliation.

\section*{SUB MARKET FEES RECEIPT.}


In the above entry, please provide the details of Cheque Number, Name of the Bank, Branch etc which will facilitate Bank Reconciliation.

\section*{SELECT F4 KEY FOR CONTRA ENTRY : -}

\section*{Contra entry :}

\section*{Amount withdrawn from the Bank.}


\section*{Contra entry :}

\section*{Amounts Deposit into the Bank.}


\section*{SELECT F5 KEY FOR PAYMENT ENTRY : -}

\section*{Payment Entry :}


\section*{Payment Entry :}


\section*{BANKS MONTHLY EXTRACT :}


\section*{We can see the Total monthly Inflow and outflow (Dr.\& Cr.) of a particular ledger and also can see the Monthly closing balance of the said ledger.}

\section*{BANKING DETAILED TRANSACTIONS :-}



\section*{After Entering Ledger Monthly Extract, We can get the detailed day wise Transactions.}

\section*{PREPARING BANK RECONCIALTION STATEMENTS :-}


For Preparing Bank Reconciliation, Press F5 Key and enter the Actual clearance date of cheque (Bank Date). From that we can get the difference and detail of amount which is not reflected in Bank account for current period.


\title{
For Print of any page press Alt + P key and select the required detail: (Please see the above Right side screen). E.g.
}
- For Print Preview
- Alt + I
- For Title Editing
- Alt + T
- For No.of copies
- Alt + C etc.

BANK RECONCIALATION STATEMENTS :-


Bank Reconciliation can be prepared on the basis of Bank date and Date on which entries are recorded in tally. With the help of this BRS can be obtained on Real Time basis.

TRAIL BALANCE :-
PATH- Gateway of Tally \(\rightarrow\) Display \(\rightarrow\) Trail Balance


\section*{Summerise Groupwise Closing Trail Balance:-}


\section*{After Pressing Alt+F1 key, We will get the detailed trail Balance :-}


By Pressing F12 ( Configuration), We can select Opening trail Balance Yes Option and can see the Opening Trail Balance also or Can see the transactions during the year also.


\section*{Can see the opening as well as Closing Trail Balance} with Transactions During the year as per below screen :


\section*{PROFIT \& LOSS A/C IN TALLY :-}

PATH- Gateway of Tally \(\rightarrow\) Display \(\rightarrow\) Profit \& Loss A/c



BALANCE SHEET IN TALLY :-
PATH- Gateway of Tally \(\rightarrow\) Display \(\rightarrow\) Balance Sheet


SHORTCUT KEYS IN TALLY :-
\begin{tabular}{|c|c|c|}
\hline Windows & Functionality & Availability \\
\hline F1 & \begin{tabular}{l}
To select a company \\
To select Accounts Button and inventory Buttons
\end{tabular} & \begin{tabular}{l}
At all masters menu screen \\
At the Accounting / Inventory vouchers creation and alteration screen
\end{tabular} \\
\hline F2 & To change the menu period & To change the menu period \\
\hline F3 & To select the company & To change the menu period \\
\hline F4 & To select the Contra voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F5 & To select the Payment voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F6 & To select the Receipt voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F7 & To select the Journal voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F8 & To select the Sales voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline (CTRL+F8) & To select the Credit Note voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F9 & To select the Purchase voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline (CTRL + F9) & To select the Debit Note voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F10 & To select the Reversing Journal voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline F10 & To select the Memorandum voucher & At Accounting / Inventory Voucher creation and alteration screen \\
\hline F11 & To select the Functions and Features screen & At almost all screens in TALLY \\
\hline F12 & To select the Configure screen & At almost all screens in TALLY \\
\hline ALT + 2 & To Duplicate a voucher & At List of Vouchers - creates a voucher similar to the one where you positioned the cursor and used this key combination \\
\hline ALT + A & To Add a voucher & At List of Vouchers - adds a voucher after the one where you positioned the cursor and used this key combination. \\
\hline ALT + C & To create a master at a voucher screen (if it has not been already assigned a different function, as in reports like Balance Sheet, where it adds a new column to the report) & At voucher entry and alteration screens, at a field where you have to select a master from a list. If the necessary account has not been created already, use this key combination to create the master without quitting from the voucher screen. \\
\hline ALT + D & \begin{tabular}{l}
To delete a voucher \\
To delete a master \\
(if it has not been already assigned a different function, as explained above)
\end{tabular} & At Voucher and Master (Single) alteration screens. Masters can be deleted subject to conditions, as explained in the manual. \\
\hline ALT + C & To create a master at a voucher screen (if it has not been already assigned a different function, as in reports like Balance Sheet, where it adds a new column to the report) & At voucher entry and alteration screens, at a field where you have to select a master from a list. If the necessary account has not been created already, use this key combination to create the master without quitting from the voucher screen. \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline ALT + D & \begin{tabular}{l}
To delete a voucher \\
To delete a master \\
(if it has not been already assigned a different function, as explained above)
\end{tabular} & At Voucher and Master (Single) alteration screens. Masters can be deleted subject to conditions, as explained in the manual. \\
\hline ALT + E & To export the report in ASCII, SDF, HTML OR XML format & At all reports screens in TALLY \\
\hline ALT + I & To insert a voucher & At List of Vouchers - inserts a voucher before the one where you positioned the cursor and used this key combination. \\
\hline ALT + R & To remove a line in a report & At all reports screens in TALLY \\
\hline ALT + S & To bring back a line you removed using ALT + R & At all reports screens in TALLY \\
\hline ALT + X & To cancel a voucher in Day Book/List of Vouchers & At all voucher screens in TALLY \\
\hline CTRL + A & To accept a form - wherever you use this key combination, that screen or report gets accepted as it is. & At almost all screens in TALLY, except where a specific detail has to be given before accepting. \\
\hline
\end{tabular}```

