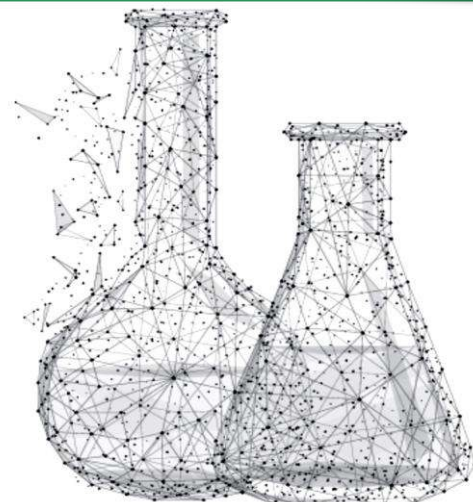
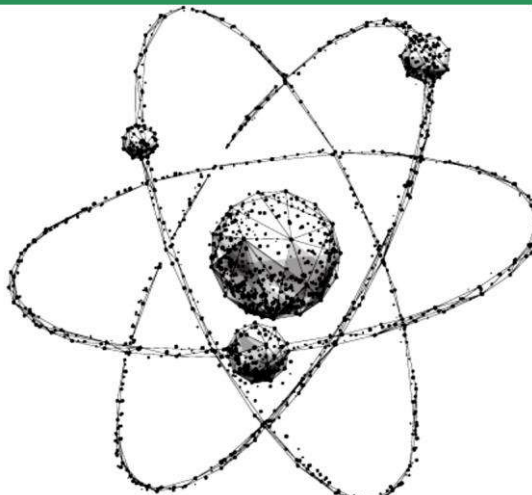
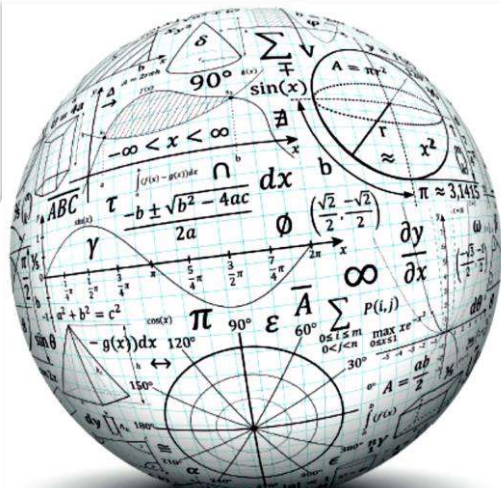




# Ambedkar College Research Journal (ACRJ)

**A Multidisciplinary & Multilingual Annual Journal of  
Ambedkar College, Fatikroy, Unakoti  
ISSN: 657-2395-2350  
Vol.-3  
Year-2020**



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**Volume - 3    Year: 2020**



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**ISSN: 657-2395-2350      Volume: 3      Year: 2020**

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*From the Desk of the Editor in-Chief & Principal i/c*

Publication of a Research Journal has a vital role in the promotion of quality in Higher Education. Enhancing the quality of Higher Education is one of the core commitments of Ambedkar College, Fatikroy. Thus, we did launch this journal in the year 2015, which was exciting and the response was encouraging. I am very much delighted that we could overcome the challenging task of maintaining the continuity of the publication and bring out the third issue of the Ambedkar College Research Journal for scholars and the general public. This issue contains nine articles covering topics from different disciplines, viz. Science, Social science, literature, and Humanities.

I firmly believe that the most critical components of any journal's success are the submission of high-quality manuscripts, the dedication of members of its editorial board, and the excellence of those reviewing the manuscripts. Hence, I convey my heartfelt gratitude to all researchers and scholars who have contributed their scholarly article for this issue, without which it would not have been possible on our part to materialize the publication of this journal. I convey my gratitude to the members of the Advisory Board for their valuable suggestions and advice. I am also thankful to the faculty members of Ambedkar College for their all-round help and support in bringing out the third issue of this journal. I hope, like the other two issues this issue will also receive a good response from scholars as well as readers and will contribute to the field of research and development. I would be obliged to get suggestions from our readers, academicians, and contributors to enhance the overall quality of the journal.

**Dr. Subrata Sharma**

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ডঃ দেবযানী ভট্টাচার্য্য

## ***Perovskite solar cell – a new horizon for Solar cell technology***

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### ***Introduction:***

Organic–inorganic lead halide perovskite materials used in photovoltaics technology have shown rapid improvements in solar cell performance, surpassing the top efficiency of semiconductor compounds such as CdTe and CIGS (copper indium gallium selenide) used in solar cells in just about a decade. In just 4 years of research, these materials have enabled a rapid progression of solar cell efficiency from 4 to over 22 %, making this technology competitive with traditional silicon solar cells. Perovskite preparation, via simple and inexpensive solution processes demonstrates the immense potential of this thin-film solar cell technology to become a low-cost alternative to the presently commercially available photovoltaic technologies. Significant developments in almost all aspects of perovskite solar cells and discoveries of some fascinating properties of such hybrid perovskites have been made recently. This paper summarizes the advances in perovskite solar cells and details the structures and working principle of perovskite solar cells, the specific function and characteristics of each layer, and the preparation methods of perovskite light-absorbing layers

### ***Perovskite crystal structure***

The Perovskite compound was first discovered by Gustav Rose in 1839. Its name comes from a Russian mineralogist L. A. Perovski. The first halide-based perovskite structure was observed in  $\text{CsPbX}_3$  by Moller in 1958 and the First three-dimensional organic–inorganic hybrid perovskite, discovered by replacing cesium in  $\text{CsPbX}_3$  ( $\text{X} = \text{Cl}, \text{Br}$  or  $\text{I}$ ) with methyl ammonium cations ( $\text{MA} = \text{CH}_3\text{NH}_3^+$ ) by Dieter Weber, in 1978.

General formula of organo-metal halide of  $\text{ABX}_3$ , where A is an organic cation (e.g., MA: methyl-ammonium  $\text{CH}_3\text{NH}_3^+$ ) or formamidinium  $[\text{FA}; \text{CH}(\text{NH}_2)_2^+]$  and also inorganic ions such as  $\text{Cs}^+$ , B is a metal cation (e.g., Pb or Sn) and X stands for the halide anion (Cl, Br or I elements). By implementing either I, Br, Cl, or their mixture for the halogen X site, the

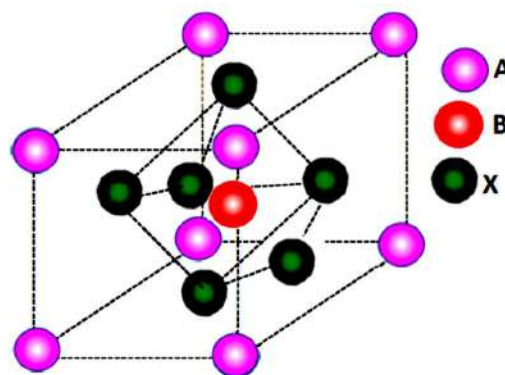


Fig.1: Crystal structure of perovskite layer.

luminescence color can be changed over the entire visible region. Organic–inorganic hybrid perovskites are cost-effective and provide highly controllable composition tenability. MAPbI<sub>3</sub> is the most common and widely studied perovskite solar cell material. CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> is a semiconducting pigment with a direct band gap of 1.55 eV with absorption coefficient as high as 10<sup>4</sup>–10<sup>5</sup>cm<sup>-1</sup>.

Others direct band-gap lead halide perovskites can be used as absorbers in thin-film solar cells due to their large absorption coefficients in the visible region. The materials with such a structure have the following four features. Firstly, the materials possess excellent photoelectric properties, lower exciton binding energy, and high optical absorption coefficients (up to 10<sup>4</sup> cm<sup>-1</sup>). Secondly, perovskite as the light-absorbing layer can absorb solar energy efficiently. Thirdly, the materials possess a large dielectric constant and electrons and holes can be effectively transmitted and collected. Lastly, electrons and holes can be transmitted simultaneously and the transmission distance is up to 100 nm or more and even more than 1 μm [16–19].

### Crystal structure stability of perovskite

To study the stability of ABX<sub>3</sub> perovskite, Goldschmidt (1927) proposed a tolerance factor (*t*), which is defined as: 
$$t = \frac{r_A + r_X}{\sqrt{2}(r_B + r_X)}$$

Where *r<sub>A</sub>*, *r<sub>B</sub>* and *r<sub>X</sub>* are the ionic radii for the ions in the A, B and X sites, respectively. Based on ionic size and geometrical tolerance factor which is an empirical index widely used for predicting perovskite crystal structure, different cations such as methylammonium (MA), formamidinium (FA), Cs, and Rb and anions like I, Br, and Cl, and their combinations, have been explored in the past few years. To form a stable perovskite structure, the size of the ionic radius is restrained by the tolerance factor. In general, cubic structures occur for 0.89 < *t* < 1 for oxide perovskites and 0.85 < *t* < 1.11 for halide perovskites. Empirically, for the most stable perovskite, *t* corresponds to values between 0.8 and 1. Based on tolerance factor and phase purity, one would believe MAPbI<sub>3</sub> with *t* ≈ 0.9 to be even more stable than mixed perovskites, which is in contrast to what is being observed experimentally.

### Structure and Working of PSCs:

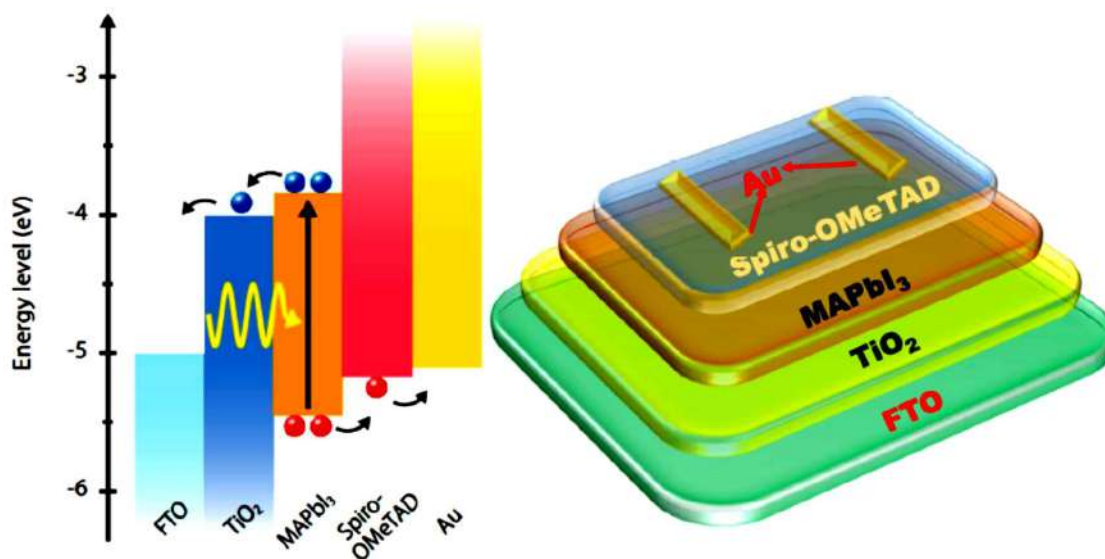


Fig. 2: Structure and Energy diagram of a typical perovskite solar cell using  $\text{MAPbI}_3$  as the perovskite absorber,  $\text{TiO}_2$  as the ETM, and spiro-OMeTAD as the HTM. FTO and Au are the front and back contacts.

Like DSSC, in perovskite solar cell active layer is the perovskite absorber, adsorbed on a  $\text{TiO}_2$  surface, undergoes photoexcitation by absorbing a photon more energetic than its bandgap and generates an exciton or an electron-hole pair and then electrons from the excited state (LUMO) of the perovskite are injected into the CB of  $\text{TiO}_2$  and transported through the layer to reach the FTO substrate. On the other hand, hole from ground state (HOMO) of the perovskite are injected into hole transport material spiro-OMeTAD to reach the Au substrate. Perovskite compound (mostly organic-inorganic halides that is sandwiched between electron transport layer (ETL) and hole transport layer (HTL)). Such perovskites are good light absorbers, resulting in efficient generation of electron-hole. The generated electrons and holes are then transported to their respective electrodes, selectively, via ETL and HTL. The main role of the hole transport layer is to collect and transport holes from the perovskite light-absorbing layer to promote the separation of the electron-hole pairs in the perovskite materials through cooperating with the electron transport layer. In hole transport materials, the highest occupied molecular orbit (HOMO) must match the valence band of perovskite materials for hole transport.



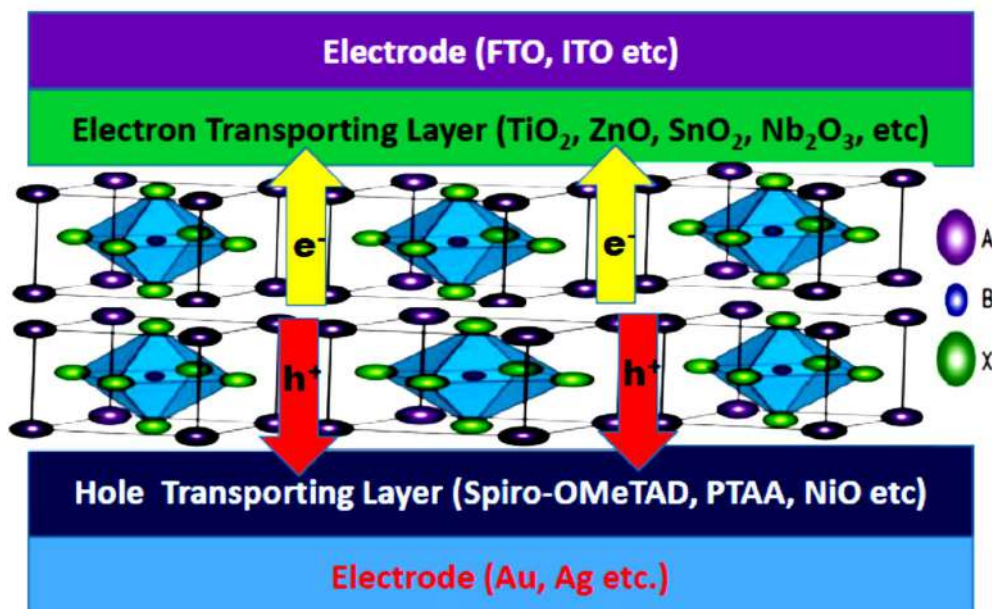


Fig. 3: Schematic device structure of a perovskite solar cell.

Spiro-OMeTAD [2,20,7,70-tetrakis-(N,N-di-p-methoxyphenylamine) spirobifluorene] based hole transport layer is widely used in perovskites which shows good penetration in nanoscale perovskite and is a good match with the valence band energy of perovskite, although its hole mobility is not as high as that of other organic hole transport materials.  $\text{TiO}_2$  and is used as an electron transporting layer (ETL). In addition,  $\text{ZnO}$ ,  $\text{SnO}_2$  and other n-type semiconductor materials are often used as electron transport layers and are employed in flexible perovskite solar cells. Many studies on electron transport materials focus on the effects of different n-type semiconductor materials and structures on the power conversion efficiency. The n-type semiconductors with the higher carrier mobility are recommended. As different metal oxides ( $\text{TiO}_2$ ,  $\text{ZnO}$ ,  $\text{SnO}_2$ , etc.) have different work functions and conductivity, the rate of electron transfer from the perovskite varies with the different metal oxides used in the cell.

Secondly, the material should be transparent to visible light due to a relatively wide band gap. Thirdly, the preparation conditions should be mild and the material can be obtained at low temperatures. Fourthly, the band structure should match the perovskite materials. In fact, the electron transport layer formed by different systems and structures can achieve high power conversion efficiency, indicating that the selection of commonly used electron transport materials is not the main factor that restricts the power conversion efficiency of solar cells.

During exposure to sunlight, the perovskite layer firstly absorbs photons to produce excitons (electron-hole pairs). Due to the difference in the exciton binding energy of the perovskite materials, these excitons can form free carriers (free electrons and holes) to generate a current or can recombine into excitons. Then, these free electrons and holes are collected by an electron transport material (ETM) and a hole transport material (HTM). Electrons are transferred from the perovskite material to  $\text{TiO}_2$ , which is used for the ETM layers and finally collected by FTO. At the same time, the holes are transferred to the HTM layer and collected by the metal electrode. Finally, the FTO and metal electrode are connected and the photocurrent is generated in the outer circuit.

Although the efficiency of lead halide perovskites is high but lead is problematic for large-scale implementation. Accordingly, lead-free alternatives such as tin halide perovskite solar cells have been investigated intensively. Tin perovskites provide direct transitions similarly to their lead counterparts which results in a large light absorption coefficient.

### ***Preparation Method***

There are two common methods:

One step coating: spin coating a mixed  $\text{CH}_3\text{NH}_3\text{I}$  and  $\text{PbI}_2$  solution

Two-step coating: spin-coating  $\text{CH}_3\text{NH}_3\text{I}$  after coating with  $\text{PbI}_2$

All deposition process happens at a low temperature (below  $150^\circ\text{C}$ ), which is suitable for the fabrication of flexible solar cells based on pet substrates. The concentration of the  $\text{CH}_3\text{NH}_3\text{I}$  solution affects the crystal size from about 90nm to about 700nm. Photovoltaic performance was strongly influenced by the  $\text{CH}_3\text{NH}_3\text{I}$  concentration, i.e., the crystal size of  $\text{CH}_3\text{NH}_3\text{PbI}_3$ .

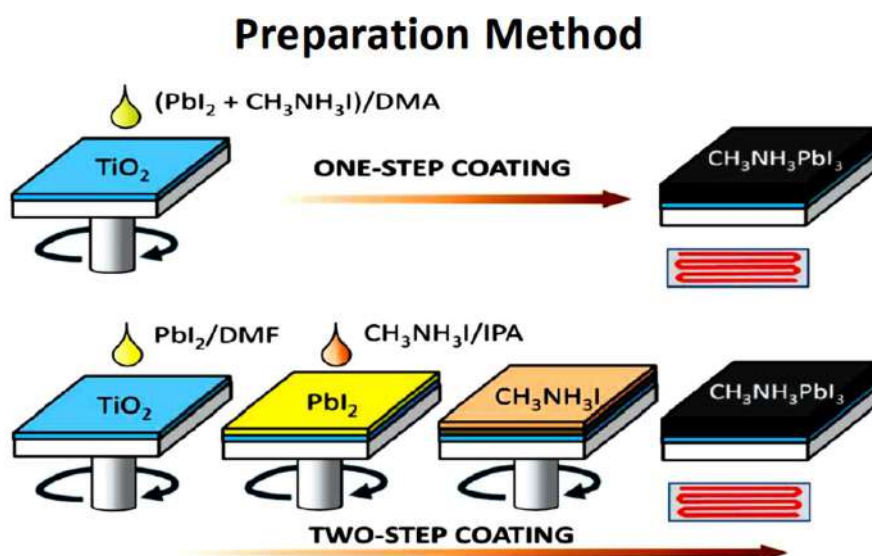


Fig. 5: Preparation method of perovskite Solar cell

### ***Some challenges of the perovskite Solar cell***

Perovskite solar cells have developed rapidly, but some issues restrict the development of perovskite solar cells. Firstly, the stability of the cell is greatly affected by external environmental factors (such as humidity, temperature, and ultraviolet radiation), which lead to the low stability of the devices and the great difficulties in encapsulating cells. Secondly, the hole transporting material SpiroOMeTAD used in perovskite solar cells is expensive (10 times the market price of gold) and its synthesis process is complex. Therefore, it is necessary to design and synthesize new hole transport materials to promote commercial applications of perovskite solar cells. Thirdly, it is difficult to deposit a large area of continuous perovskite film with the traditional methods and so other methods should be improved to prepare high-quality and large-area perovskite solar cells for commercial production in the future. Fourthly, the Pb element employed in perovskite solar cells is highly toxic, which will hinder the industrial promotion and development of perovskite solar cells. Therefore, it is necessary to find a low-toxicity or nontoxic ingredient to replace Pb in the future.

### ***Conclusion:***

In this review article, historical background, materials used, production of perovskite solar cells and their properties and mechanisms has been explained. Along with the astounding progress in the efficiency of perovskite solar cells, researches on the issue of instability have attracted enormous attention. To attain the great goal concerning efficiency as well as stability we have to focus on new materials to modify the current perovskite materials. This perovskite technology is now compatible with these first- and second-generation technologies, and is hence likely to be adopted by the conventional photovoltaics community and industry. Therefore, it may find its way rapidly into utility-scale power generation.

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***Critical Edition: A Most Essential Part of Manuscriptology***

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The word manuscript is derived from the Latin word *manu scriptus*, and ‘logy’ from the Greek word *logus*. Therefore, the combination of *manu scriptus* and *logus* constitutes the term manuscriptology. The word *manu* has originated from the Latin word ‘*manus*’ which stands for manual, means relating to the hand, the word *scriptus* is from the Latin word ‘*scribere*’ which means ‘a particular orthography or writing system’ and the word *logus* means science. Hence the term manuscriptology means the science of manuscripts, in other word - the scientific study of ancient documents written by hand. Thus, we can simply define that manuscriptology is a branch of learning concerned with searching, collecting, cataloguing, preserving, transcribing, reading, collating, editing and publishing of manuscripts.

It would be worthy to mention herewith that though conventionally manuscripts are considered to be the hand-written documents, but today, with involvement of technology, the use of the term “manuscript” is no longer necessarily means something that is hand-written. Thus, the matters produced on a typewriter or typeset using a computer could be considered as manuscript. Those matters will lose their status of manuscript only after printing in a press.

A wise mind may incline to know the necessity of this particular science pertaining to the study of manuscripts. To satisfy those it could be said that the manuscriptology makes us understand the nature of manuscripts and shows ways of physical and intellectual preservation of manuscripts. Preservation of manuscripts are important because, since the system of writing comes into existence, all our orally transmitted knowledge has been recorded on writing materials and those records are treasures of informations on all the intellectual areas reflecting the scientific knowledge of the older generation in modern context.

In modern day an emerging branch of study with fresh approach to the extant manuscriptology, with its scope extended further and developed in to new vistas is called new manuscriptology. It is an interdisciplinary study which includes textology, i.e. scientific investigation regarding the birth, growth and death (end of a text in the printed form made



available to the general public) of texts, literary criticism, genetic criticism, in which the manuscripts are considered as instruments for the study of literary genesis etc. It is not simply the old methodology of studying the manuscript; rather is to search the original manuscripts of a particular author and subject the same to intensive study. Therefore, the term new manuscriptology denotes a new way of looking at old things with the help of other sciences. It exceeds the conventional aim of manuscriptology, the mere knowledge of the text and its subject matters; rather it aims at a comprehensive investigation of the text which includes details about the author as well as the historical knowledge related to the text. A doubt may rise in this concern that: is it different from higher criticism? Of course, the domain of new manuscriptology is not very much different from that of Higher Criticism; rather it is elevation of higher criticism to the needs of present day.

There are three important branches of manuscriptology, viz. preservation, cataloguing, edition and critical edition, which are connected to the conservation science, library science and literary science respectively. Of these, critical edition which is scholarly known as textual criticism is a most important aspect of manuscriptology. For, this tends towards publication, which brings out the hidden knowledge to the public. But, before going to our main topic, i.e. critical edition, it would be wise to first understand what is edition.

According to the lexicographic explanation, editing means: to prepare (a book, manuscript, newspaper, programme, film etc.) for publication or for broadcasting by correcting, altering etc. Therefore, edition means to reconstruct and reorganise an author's work for nearly original presentation. Simply printing the text as found in a manuscript copy after noting down the mistakes found in the text can be called as an edition of that text.

When an edition involves some critical process, that is a careful objective analysis without dismantling the nativity of the work, is called critical edition. It is not simply printing a text on the basis of a MS, rather it involves collection of different MSS, collation, i.e. careful examination and comparison to note points of disagreement, restoration and emendation, and then to present the text with its nativity intact.

The above discussion reveals that publication is the ultimate aim of both edition and critical edition. But both differ in the method of publication. Following are the basic differences between edition and critical edition. (1) In edition changes, i.e. revision, necessary modifications and deletion etc., may be incorporated as per the requirement of the editor, whereas in critical edition changes are without involving the editor's view point. (2) In edition finalisation of the text is more important than the dismantling of nativity of the work, but in critical edition intactness of the nativity of the work is most important than anything else. (3)

Edition involves systematic arrangement of an author's work for publication, whereas critical edition involves scientific and systematic arrangement of an author's work for publication. (4) In edition emphasis is more about the ideas in the text, whereas a critical edition emphasizes more on the text itself by carefully considering the verbal expressions, wordings and compositions. (5) The analysis involved in the edition is more subjective, whereas in critical edition it is more objective.

It is clear from the above discussion that due to some extra merits the critical edition has got the status of 'a most essential part' of manuscriptology. The desire to possess a personal copy of a valuable text brought out the process of copying. Therefore, in these days a text is found to be survived in multiple copies being copied by different copyist and each copy is different from others. This dissimilarity is because of various factors, viz. the knowledge of the copyist, the regional influence etc. which leads to many errors. Taking those erroneous copies of a text and simply editing the text can not be considered most worthwhile, though such editions are not totally valueless because it produce a neat copy of the text and does not get corrupted further. Therefore the critical edition, which finds the most credible reading, which the author could have written or the one nearest to it from among or on the basis of the various readings provided by the manuscript copies, is considered as the most essential part of manuscriptology.

### THE PROCESS OF CRITICAL EDITION

In fact, there is no definite and universal process of editing is not strictly confined to any definite method. It differs from work to work because each text has its own peculiarities. But there are some general principles in the process of editing, which are discussed herewith. The process of critical edition, otherwise known as textual criticism has four stages, categorized under two major parts, viz. lower criticism and higher criticism, of which the former involves three stages, viz. heuristics, restoration or recensio and emendation or emendatio, and the later is without any subdivision.

### LOWER CRITICISM

In this part of the process of critical edition the editor tries to present the text as nearest as possible to the author's original, on the basis of the available materials. Following are three stages of this:

**Heuristics:** Its lexical meaning is: a rule/set of rules of commonsense intended to increase the probability of solving some problem. Here the problem of an editor is to bring forth the text nearest to author's original, and to solve this he has to undertake certain tasks, viz. collection of the entire material of manuscripts and testimonials, arrangement in a methodical way, called pedigree or stemma codicum etc. Following are the stages of this: (A) Collection - This is collection of materials needed for editing. It includes primary and secondary apparatus. The former is collection of available MSS in the form of autograph (written by the author himself) and copies (copied by others) and the later includes particulars related to the manuscript of the text which can provide background of the work, viz. descriptive catalogues of different libraries, commentaries, catalogue of catalogues etc. (B) Siglum – The process of giving identification mark for each codex consulted is called siglum. Those identification marks should be very simple, like English A, B, C, D etc. or Indian 'ka', 'kha', 'ga' etc. The identification marks could be on the basis of scripts, place of acquisition (source), e.g. D (Devanagari), O (Oriya), B (Bengali) etc. and P (Pondicherry), C (Chennai), M (Mumbai) etc. Also the editor can use identification marks using both script and source, e.g. PG for Pondicherry codex Grantha script. (C) Collation – It is the process of comparison of all the significant evidences in the codices and testimonials of a text, leading to the determination of the original reading. There are some common stages of this process, viz. consideration of the better codex among available codex, preparation of a copy the text, word by word comparison of the text transcribed in different manuscripts and noting every minute variant with the identification mark of each codex. The editor is free to use convenient abbreviations for collation, e.g. w – worm-eaten, nf – not found, cr – correction etc. (D) Stemma codicum or Pedigree of codices: This is a chart in the form of a family tree showing the interrelation of extant manuscripts consulted for edition. It is one of the most difficult but important tasks of critical edition which need careful observation of all the extant copies of the text. The points of observations includes: the writing style, peculiarities of the errors etc. (E) Examination of Testimonia - It is the process of perusal of secondary sources to fix the reading of the text.

**Restoration or Recensio:** This is the process of restoration of text, to the extent possible, to its original form by critically analyzing the various readings and other information gathered from the codices and testimonials. In this process the editor has to be skilled, careful, open minded, i.e. independent of sectarian attitudes, and has to carefully choose the best reading of the text, keeping the fact in mind that all readers may assess his choice.

**Emendation or Emendatio:** It is the last resort of the editor in finalizing the text. In case of the unavailability of any suitable variants which appear to be that of original text or in case of the absence of adequate evidence to arrive at a conclusion pertaining to choosing a suitable variant, the necessity of emendation rises. In this process the editor has to suggest the probable reading for emendation against extant erroneous readings satisfying the internal (related to the original author of the text) and external requirements (related to the scribe of the manuscript) of the text. The new reading suggested by the editor is called conjectural emendation.

Regarding the process of emendation there exist two schools, of which one advocates 'scientific interpretation', which means the unacceptable readings should be interpreted rather than emended, and other views that the faults shall not be allowed to remain, which may lead to misinterpretation of the text. But when the question of following the school comes, it is wise to follow any one according to the appropriateness of the situation; rather than stick to one of them wholly, as both are right in their own way.

#### HIGHER CRITICISM

Higher criticism rises above the above mentioned mechanical works. Therefore it is not directly connected with the finalization of the text as transmitted in manuscripts; rather it is connected with the text from its content point of view. Here the editor assess author's work on the basis of his life, style of writing, language, contribution, circumstances in which he authored the work etc. Hence the higher criticism provides all available information about the work, author and various other factors like social, political, cultural, geographical, economic etc. which might have influenced the author in varying degrees. In view of the vast area, the higher criticism is not within the limits of textual criticism alone; rather extend to science of criticism. Higher criticism need not necessarily be a part of textual criticism and edition. It can be done independently.

#### SHORT HISTORY OF CRITICAL EDITION

The Greek scholars of Alexandria initiated the tradition of textual criticism in 3<sup>rd</sup> century B.C. which was further developed by Roman and Latin scholars. In 18<sup>th</sup> this science grew in full-fledge and in 19<sup>th</sup> there occurs some technical advancement of the science.

It is mentioned in Rajatarangini (1/176) that once the Mahabhaasya of Patanjali becomes so corrupt, that Abhimanyu, king of Kashmir, engaged the grammarian Chandracharya to restore it to the original form.

*candrācāryādibhirlabdho deśāttasmācca tadāgatam|*

*pravartitam mahābhāṣyaṁ svaṁ ca vyākaraṇaṁ kṛtam||*

This is probably the earliest instance of a critically edited text in India. Therefore it makes us realize that the ancients were not unaware of the importance of the editing of text. In India it was V.S.Sukthankar who first applied the method of textual criticism, therefore can be called the father of modern Indian textual criticism and edition. Sukthankar's critical edition of the great epic Mahabharata is a best example of Indian textual criticism.

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## MATHEMATICAL MODELING AND ITS APPLICATION

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### Abstract

Mathematical model is a description of a system using mathematical concept and language. The process of developing a mathematical model is termed as mathematical modeling. Mathematical Modeling may play a useful role to solve real world problems. The importance of Mathematical Modeling as a discipline to be studied and cultivated, has been realized only during the last four or five decades. In this paper, basic concept of Mathematical Modeling, its application in various fields will be discussed.

**Key words:** Mathematical Modeling, Empirical Models, Theoretical Models, Flow Chart, Models.

### Introduction:

#### Mathematical Model and Modeling:

A natural question which must have arisen in our mind is “What is Mathematical Model & Modeling?”

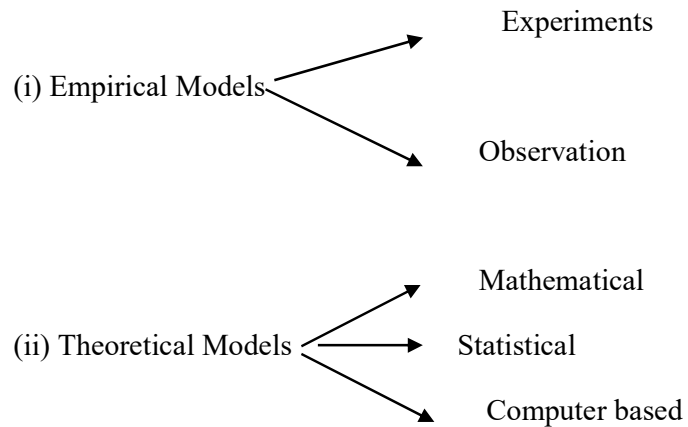
A mathematical model is a description of a system using mathematical concept and language. The process of developing a mathematical model is termed as mathematical modeling.

In simple words, conversion of Real World phenomenon under certain conditions into Mathematical formulation is known as Mathematical Modeling. The concept of Mathematical Modeling lies on the simplification of Real World problems and representing them as Mathematical problems or Mathematical Model, solving the mathematical problems and interpreting these solutions in language of the Real World Mathematical Modeling is not just like Calculus or Differential Equations or Dynamics , but it is a small collection of general principles which is useful in the process of applying mathematical knowledge to analyze problems that takes place in various non-mathematical disciplines. Actually, a model is a simplified representation of a complex system. Performing experiments to understand & solve Real World problems may be risks and expensive. In such situation, the Mathematical Modeling may play a useful role to solve the problems. Due to powerful digital computer and effective computing methods, use of mathematics in solving Real World problems has become widespread.

## Models:

**Mathematical Models are basically of two kinds --**

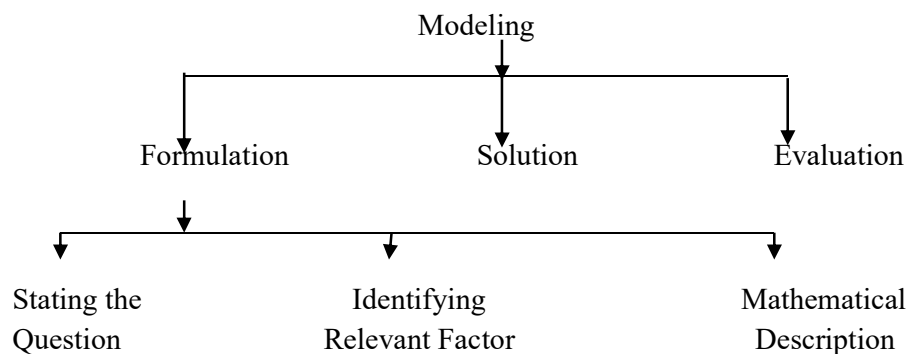
(i) Empirical Models & (ii) Theoretical Models.



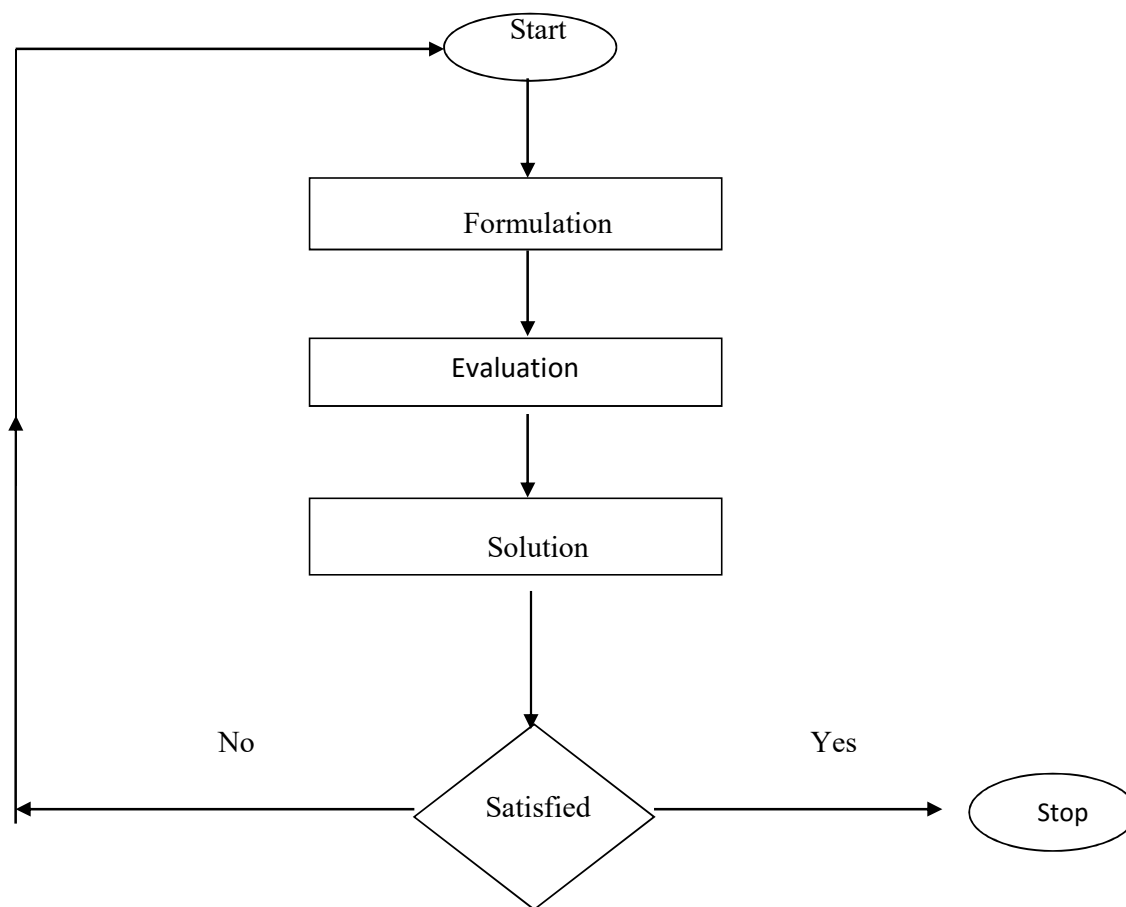
The importance of Mathematical Modeling as a discipline to be studied and cultivated, has been realized only during the last three or four decades.

### Three Main Steps:

**We can divide the Modeling process into three main steps.**



### Mathematical Model follows the process – Flow Chart



### Why Mathematical Modeling?

Mathematical modeling is the art of translating problems from an application area into tractable mathematical formulations whose theoretical and numerical analysis provides insight, answers, and guidance useful for the originating application.

Mathematical Modeling is indispensable in many applications. It is successful in many further applications. It gives precision and direction for problem solution and enables a thorough understanding of the system modelled and prepares the way for better design or control of a system. It allows the efficient use of modern computing capabilities.

### Types of Modeling:

Linear or Non-linear.

Static or Dynamic.

Discrete or Continuous.

Deterministic or Probabilistic.

### Applications of Mathematical Modeling:

During the last six decades, the importance of Mathematical Modeling has been realized and studied and cultivated as a discipline (Arnold Neumaier, 2003). Mathematical Modeling is essential in many applications and is successful in many further applications. It gives precision and direction for problem solution and enables a thorough understanding of the system modelled. Mathematical models are used not only in the natural sciences including physics, biology, earth science, meteorology and engineering disciplines which include computer science, artificial intelligence, but also in the social sciences such as economics, psychology, sociology and political science.

#### A list of applications:

All areas mentioned have numerous mathematical challenges. Few examples are

Area	Meaning/Description	Models
<b>Anthropology</b>	Which studies human activity through investigation of physical evidence	Modeling, classifying and reconstructing skulls
<b>Archaeology</b>	Scientific study of human activity through the recovery and analysis of material culture.	Reconstruction of objects from preserved fragments and classifying ancient artifices
<b>Architecture</b>	Architecture is both the process and the product of planning, designing, and constructing buildings or any other structures	Virtual reality
<b>Artificial Intelligence</b>	Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems	Computer vision, Image interpretation, Robotics, Speech recognition, Optical character recognition, Reasoning under uncertainty
<b>Arts</b>	Arts refers to the theory and physical expression of creativity found in human cultures and societies	Computer animation (Jurassic Park)
<b>Astronomy</b>	Astronomy is the study of the sun, moon, stars, planets, comets, gas, galaxies, gas, dust and other non-Earthly bodies and phenomena	Detection of planetary systems, Correcting the Hubble telescope, Origin of the universe, Evolution of stars
<b>Biology</b>	Biology is the natural science that studies life and living organisms, including their physical structure, chemical processes, molecular interactions, physiological mechanisms, development and evolution	Protein folding, Human genome project, Population dynamics, Morphogenesis, Evolutionary pedigrees, Spreading of infectious diseases (AIDS). Animal and plant breeding (genetic variability)
<b>Chemical Engineering</b>	<i>Chemical engineering</i> is a branch of <i>engineering</i> that uses principles of <i>chemistry</i> , physics, mathematics, biology, and economics to efficiently	Chemical equilibrium, Planning of production units

	use, produce, design, transport and transform energy and materials	
<b>Chemistry</b>	<i>Chemistry</i> is the scientific discipline involved with elements and compounds composed of atoms, molecules and ions: their composition, structure, properties, behaviour and the changes they undergo during a reaction with other substances	Chemical reaction dynamics, Molecular modelling, Electronic Structure calculations.
<b>Computer Science</b>	<i>Computer science</i> (sometimes called <i>computation science</i> or <i>computing science</i> , but not to be confused with <i>computational science</i> or software engineering) is the study of processes that interact with data and that can be represented as data in the form of programs	Image processing, Realistic computer graphics (ray tracing)
<b>Criminalistics Science</b>	Criminalistics can be defined as the application of scientific methods to the recognition, collection, identification, and comparison of physical evidence generated by criminal or illegal civil activity	Finger print recognition, Face recognition
<b>Economics</b>	Economics is a social science concerned with the production, distribution, and consumption of goods and services	Labour data analysis
<b>Electrical Engineering</b>	<i>Electrical Engineering</i> is that branch of Engineering which deals with the study of application of electricity, electronics and electromagnetism	Stability of electric circuits, Microchip analysis, Power supply network optimization
<b>Finance</b>	<i>Finance</i> is a field that is concerned with the allocation (investment) of assets and liabilities over space and time, often under conditions of risk or uncertainty	Risk analysis, Value estimation of options
<b>Fluid Mechanics</b>	<i>Fluid mechanics</i> is the branch of physics concerned with the <i>mechanics</i> of <i>fluids</i> (liquids, gases, and plasmas) and the forces on them	Wind channel, Turbulence
<b>Geo-sciences</b>	Geo-science is the study of the Earth - its oceans, atmosphere, rivers and lakes, ice sheets and glaciers, soils, its complex surface, rocky interior, and metallic core	Prediction of oil or ore deposits, Map production, Earth quake prediction



<b>Internet</b>	The <i>Internet</i> (portmanteau of interconnected network) is the global system of interconnected computer networks that use the <i>Internet</i> protocol suite (TCP/IP) to link devices worldwide	Web search, Optimal routing
<b>Linguistics</b>	The scientific study of language and its structure, including the study of grammar, syntax, and phonetics	Automatic translation
<b>Materials Science</b>	Materials science is an interdisciplinary field involving the properties of matter and its applications to various areas of science and engineering	Microchip production, Microstructures, Semiconductor modeling
<b>Mechanical Engineering</b>	Mechanical engineering is the discipline that applies engineering, physics, engineering mathematics, and materials science principles to design, analyze, manufacture, and maintain mechanical systems)Stability of structures (high rise buildings, bridges, air planes)	Structural optimization, Crash simulation
<b>Medicine</b>	<i>Medicine</i> is the science and practice of establishing the diagnosis, prognosis, treatment, and prevention of disease	Radiation therapy planning, Computer-aided tomography, Blood circulation models
<b>Meteorology</b>	<i>Meteorology</i> is a branch of the atmospheric sciences which includes atmospheric chemistry and atmospheric physics, with a major focus on weather forecasting	Weather prediction, Climate prediction (global warming, what caused the ozone hole?)
<b>Music</b>	Music is a form of art that combines vocal or instrumental sounds to create a composition	Analysis and synthesis of sounds
<b>Neuroscience</b>	Neuroscience is a multidisciplinary science that is concerned with the study of the structure and function of the nervous system	Neural networks, Signal transmission in nerves
<b>Pharmacology</b>	Pharmacology is the branch of biology concerned with the study of drug or medication action	Docking of molecules to protein, screening of new compounds
<b>Political Sciences</b>	<i>Political science</i> is a social science which deals with systems of governance, and the analysis of political activities, political thoughts, and political behaviour	Analysis of elections
<b>Psychology</b>	<i>Psychology</i> is the scientific study of the mind and behaviour	Formalizing diaries of therapy sessions
<b>Space Sciences</b>	Space science encompasses all of the scientific disciplines that involve space exploration and study	Trajectory planning, Flight simulation, Shuttle re- entry

	natural phenomena and physical bodies occurring in outer space, such as space medicine and astrobiology	
<b>Transport Science</b>	<i>Transportation Science</i> focuses primarily on fundamental theories, coupled with observational and experimental studies of <i>transportation</i> and logistics phenomena and processes, mathematical models, advanced methodologies and novel applications in <i>transportation</i> and logistics systems analysis, planning and design	Air traffic scheduling, Taxi for handicapped people, Automatic pilot for cars and airplanes

Also mathematical models can be developed for Urban & regional planning, Population, Environmental, Water Resources, Optimal utilization of exhaustible & renewable resources, Land distribution, Forestry and so on.

#### Some Example of Mathematical Models:

- Find the mass of the Earth (without using a balance).
- Find the temperature at the centre of the Sun (without taking a thermometer there).
- Find the volume of blood inside the body of a person (without bleeding the person to death).
- Estimate the population of India in the year 2050 AD (without waiting till then).
- Estimate the total expenditure for an owner to run his Rubber garden in the next five year (without waiting).

#### A simple model-- Model related to Ecological Science:

##### Population dynamics:

- Population: A group of inbreeding individuals of a species occupying a particular space.
- Population growth: The change in number of population per unit area at a particular time.
- Population dynamics: study of changes in population densities in an area.
  - i) Population dynamics has traditionally been the dominant field of mathematical biology.
  - ii) In the study of population growth first order differential equation is used.

Let  $P(t)$  denotes the number of units in a population at time  $t$ . Though  $P(t)$  is a function of  $t$ , let us assume this to be a real valued and continuously differentiable function.

The rate of growth at anytime is proportional to the population at that time is given by

$$\frac{dP}{dt} \propto P \text{ or } \frac{dP}{dt} = rP \text{ where } r = \text{constant of proportionality}$$

$$\text{Or } \frac{dP}{P} = r dt$$

$$\text{Integrating } \log_e P = rt + \log_e C$$

$$\text{Or, } \log_e \frac{P}{C} = rt$$

$$\text{Or, } P = Ce^{rt}$$

$$\text{When } t = t_0, P = P_0 \therefore P_0 = Ce^{rt_0}$$

$$\frac{P_0}{e^{rt_0}} = C \therefore P = P_0 e^{r(t-t_0)}$$

In a locality of Kailashahar, the population increases from 20,000 in the year 2000 to 30,000 in the year 2010, find the expected population in 2020.

Time span( $t$ )= 2000 to 2010 =10 years

$$P_{2000} = 20,000, P_{2010} = 30,000, t = 10$$

$$P_{2010} = P_{2000} e^{r(t-t_0)}$$

$$\text{Or } 30,000 = 20,000 e^{10r}$$

$$\text{Or, } \frac{3}{2} = e^{10r}$$

$$\text{Now population in 2020} = P_{2020} = P_{2000} e^{r(2020-2000)}$$

$$P_{2020} = 20,000(e^{20r}) = 20,000(e^{10r})^2 = 20,000\left(\frac{3}{2}\right)^2 = 45,000$$

Expected population in 2020 will be 45,000.

### Conclusion:

From the above discussion, it is found that mathematical models can be developed and formulated for various subject area and we can try to solve them with the help of standard optimization techniques.

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***Use of Solar simulator for studying the current – voltage characteristics of a crystalline silicon solar cell under different conditions***

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**Abstract**

Solar energy is the only the abundant source of clean energy which can provide security for the future development and growth. So the Scientists, Engineers and Physicists are much more interested in this sustainable study area. Due to invention of much more sophisticated devices and desire of getting sustainable future, efforts of using this huge source of green energy have been increasing day by day. Solar simulators can be used for studying the current-voltage relationship of a crystalline silicon solar cell where quartz halogen lamps are used for which the observed illumination spectrum matches with that of sun. In this paper studies have been carried out for a sample of crystalline silicon solar cell for following its I-V characteristic in dark and under illumination condition. Moreover, dependency of the cell on light intensity and temperature has also been reported here. When the PV cell is exposed to higher temperatures, it has been observed that short circuit current  $I_{SC}$  increases slightly, while the open circuit voltage  $V_{OC}$  decreases more significantly. Maximum power, efficiency, fill factor and series resistance are four important parameters of any solar module for determination of solar cell performance and these have been calculated here from the obtained characteristics.

**Keywords:** Solar simulator, Crystalline Silicon solar cell, fill factor, efficiency of Solar cell

## 1. Introduction

Solar energy is the most promising renewable energy. It provides an unlimited clean and environment friendly energy [1]. Solar energy is a green energy and it can be used to generate electricity and heating purpose. Recently scientists are more interested in the field of solar energy because sun is one and only everlasting renewable energy source having zero potential damages to our environment. The illuminated current versus voltage characteristics of a photovoltaic device typically measured with respect to standard reference conditions [2]. They are defined by a spectrum, intensity, temperature and area [3]. The study on silicon solar cell was started mid twentieth century after the invention of p-n junction diode [4]. In 1954, modern silicon solar cell was developed. Solar cell is to design for converting the photon of sun light into electron to generate electricity [5]. Conversion efficiency of solar cell is to define as the ratio of output power from the solar cell to the incident input power [6]. It is measured by solar simulator to get laboratory efficiency experimentally. To test the values of characteristics parameter of solar modules of different types and size may be tested to find suitable system for the particular load requirements [7]. Field testing is costly, time consuming and depend heavily on prevailing weather condition. By using solar simulator, we can overcome these problems. Our steady state solar simulator is ideal for much different navigation. Characterization of a solar cell is much easier by using this solar simulator [8]. It gives the linear output where the sun gives the nonlinear output [9]. Moreover, it works safely and it has simple maintenance. But the voltage Sweep and direction of the potentiometer, contact to the metallization, light source and the Junction temperature are some important matter that influences the I-V measurement in this experiment [10]. However, solar simulator is a device that provides illumination approximately natural sunlight. The purpose of the solar cell simulator is to provide Controllable indoor test facilities under laboratory condition. It is a micro base controller. Maximum power, efficiency, fill factor, series resistance are some important parameters for determination of any solar cell performance of any solar module. We can measure these parameters by studying the current voltage characteristics of a crystalline silicon solar cell under various conditions and understand the properties of a solar cell.



## 2. Objective

The main objectives of our study is to investigate I-V characteristics of a crystalline silicon solar cell at different light intensities and at different temperatures. Moreover, we have studied such characteristics by using four quadrant power supply and solar cell as load. Study of such characteristics by using solar cell as power source under illumination and in dark condition is another important study of interest. Our study has been carried out by using the solar simulator which is less time consuming, less economical and does not depend on prevailing weather condition compared to field testing.

## 3. Methodology

Solar simulator and a Four-quadrant power supply have been used for carrying out our study. Inside the simulator panel there are two solar cells connected to 4 terminals as shown in fig4.

In order to study with single cell, we have used jumper between leads B and D as shown in fig 5. For connecting the cell to four-quadrant power supply we have kept DPDT switch S in EXT position and while studying Solar cell under illumination as Power Source position of switch S has been kept in INT position (Fig 4). From I-V characteristics of solar cell one can estimate Maximum power, efficiency, fill factor, series resistance and shunt resistance as explained below.

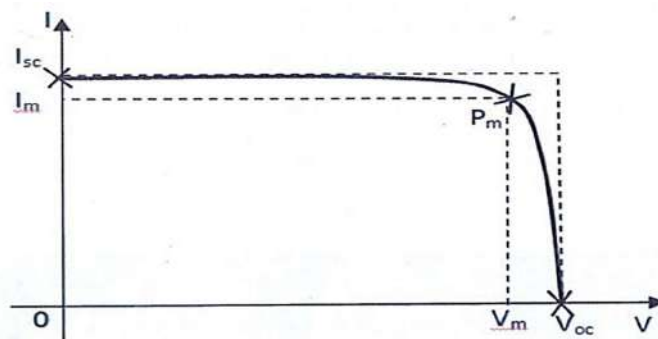


Fig 1: Current-voltage curve of a solar PV module

The maximum power output of a PV module can be estimated as  $P_m = V_m \times I_m$

The Fill factor (FF) is the squareness of the I-V curve and mainly related to the resistive losses in a solar module. It may be estimated using the relation

$$FF = \frac{V_m I_m}{V_{oc} I_{sc}} 100\%$$

The module efficiency can be estimated using the relation

$$\eta = \frac{V_{oc} \times I_{sc} \times FF}{P_{in}}$$

Where, the parameters  $I_{sc}$ ,  $V_{oc}$ ,  $I_m$ ,  $V_m$  all are explained in fig1.

One can determine the series resistance by calculating the inverse of the slope of the I-V curve at the open circuit voltage and the shunt resistance from the inverse of the slope of the I-V curve at the short circuit condition.

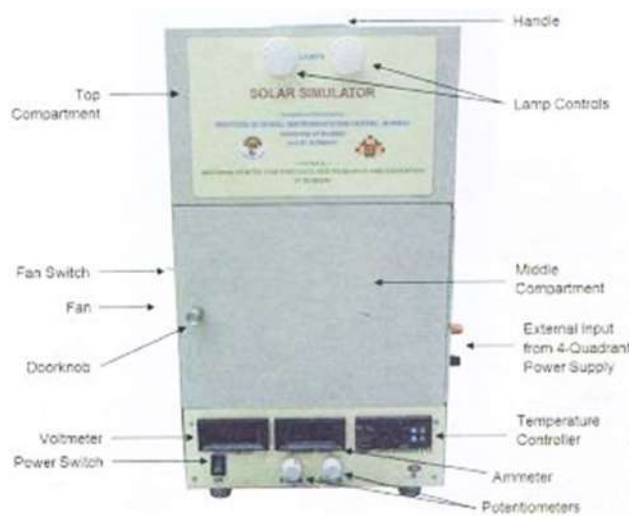
#### 4 Experimental set up

In the Department of Physics, Ramthakur College a solar physics lab has been developed with the help of National Centre for Photovoltaic Research and Education (NCPRE), IIT Bombay where the experimental set up for carrying out the current study has been installed (fig 2). A solar simulator setup has been installed in the Department which is very useful for studying the I-V characteristic of solar cell under different conditions. In this arrangement two artificial light sources (quartz halogen lamp) has been



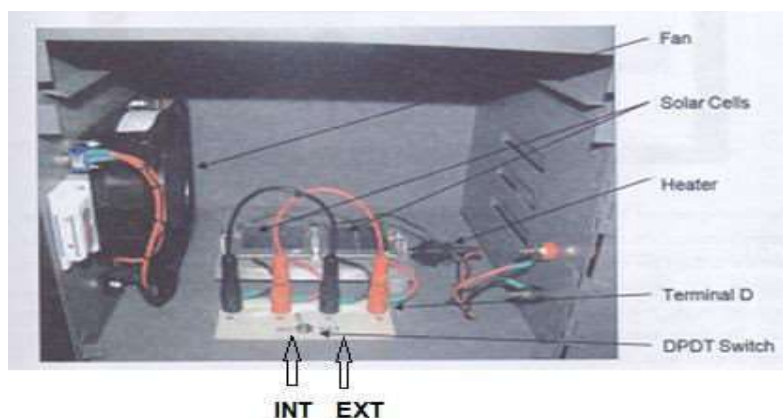
*Fig 2: Experimental setup for studying I-V characteristic of Si solar cell*

used which are OSRAM 50 W (230V) each. Two lamp control knobs are installed in the top panel to control the lamps (fig 3).

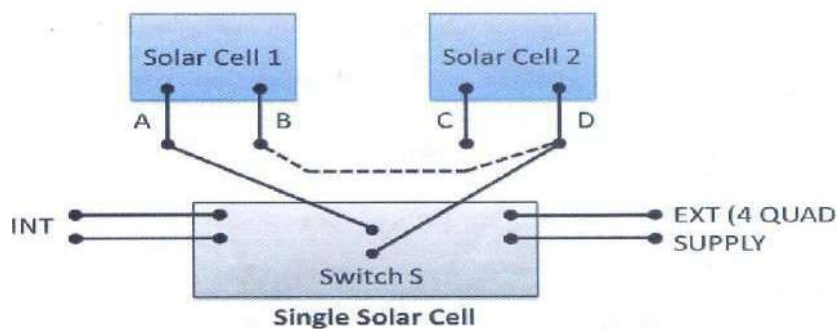


*Fig 3: Illustration of the Solar Simulator kit*

Two solar cells are assembled in the bottom chamber of the simulator. The cells are mounted on aluminium block where a heater element has been inserted to vary the temperature of the block. A 100-ohm platinum sensor is used to monitor temperature of the aluminium block. A fan is provided inside the simulator for cooling the solar cells to reduce the over heat from the quartz halogen lamps used as light source.



**Fig 4: Internal parts of Solar simulator showing Solar cells**



*Fig 5. Single solar cell interconnection with the jumpers*

A 4-quadrant power supply (Schematic) with solar cell connected as load has been displayed in fig 6. A normal power supply in the laboratory can't measure negative current at positive voltage. But a 4-quadrant power supply is able to characterize as it can be used as source as well as sink current for voltage of any polarity. Fig7. is displaying the front view of a four-quadrant power supply.

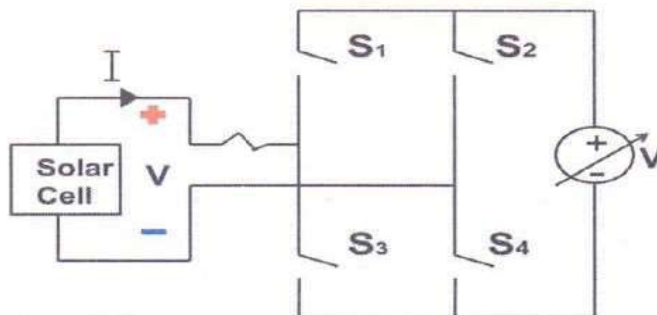


Fig 6: 4-Quadrant power supply schematic with the solar cell connected as load

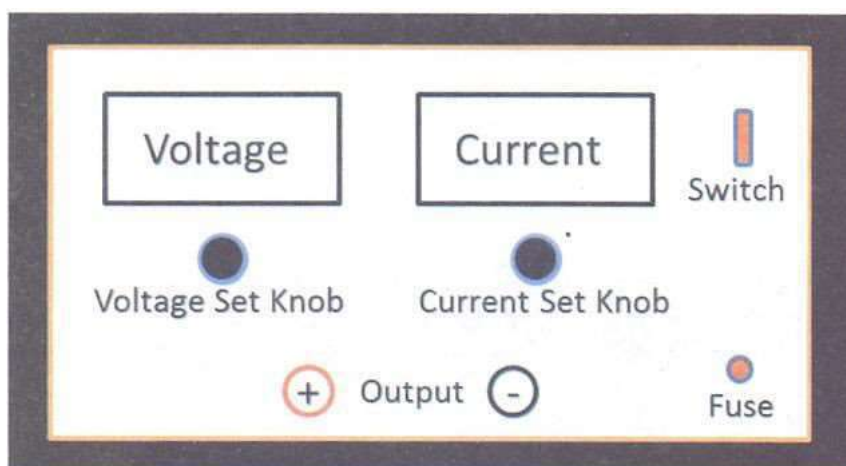


Fig. 7: Front view of four-quadrant power supply

## 5 Result and discussion

Current –voltage characteristics of crystalline silicon solar cell has been studied in dark and illuminated condition as well as dependency of the solar cell on light intensity and Temperature

is our another study of interest to calculate Maximum power, efficiency, fill factor and series resistance of Solar Cell.

### ***5.1 Dark and illuminated current –voltage characteristics of solar cells***

A crystalline silicon solar cell is basically a large area n-p junction diode and we are mainly interested to study the behaviour of this diode in dark and under illumination. In this section we have studied I-V characteristics of crystalline silicon solar cell in two different manners as follows.

#### ***5.1.1 Study of I-V characteristic using four quadrant power supply with solar cell as Load:***

The studied solar cell was illuminated by 100 m w/cm<sup>2</sup> irradiance whiles the operating Temperature was kept at 40<sup>0</sup>c using four quadrant power supply with solar cell as Load. The obtained result has been displayed in table no 1. The corresponding I-V characteristic curve of the crystalline solar cell is shown in fig 8.

Table 1: Measurement using four quadrant power supply

Voltage(m V)	Current(m A)	Current(m A)
	In dark	In light
-0.70	-0.066	-0.586
-0.60	-0.057	-0.598
-0.50	-0.048	-0.609
-0.40	-0.040	-0.612
-0.30	-0.031	-0.616
-0.20	-0.022	-0.621
-0.10	-0.013	-0.608
0.00	0.004	-0.592
0.10	0.004	-0.550
0.20	0.012	-0.478
0.30	0.020	-0.376
0.40	0.024	-0.238
0.50	0.054	-0.118
0.60	0.088	0.028

0.70	0.208	0.180
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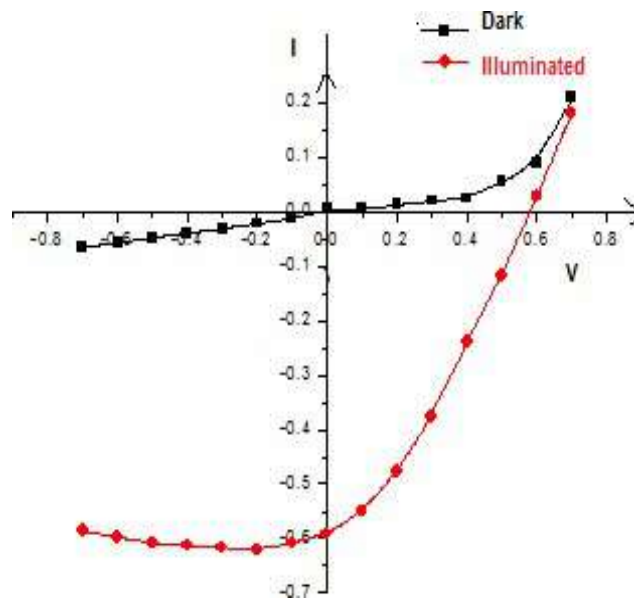


Fig 8: I-V characteristic curve of studied silicon Solar cell both in dark & illumination condition

### 5.1.2 Study of I-V characteristics of Si solar cell using cell as a source of electrical power.

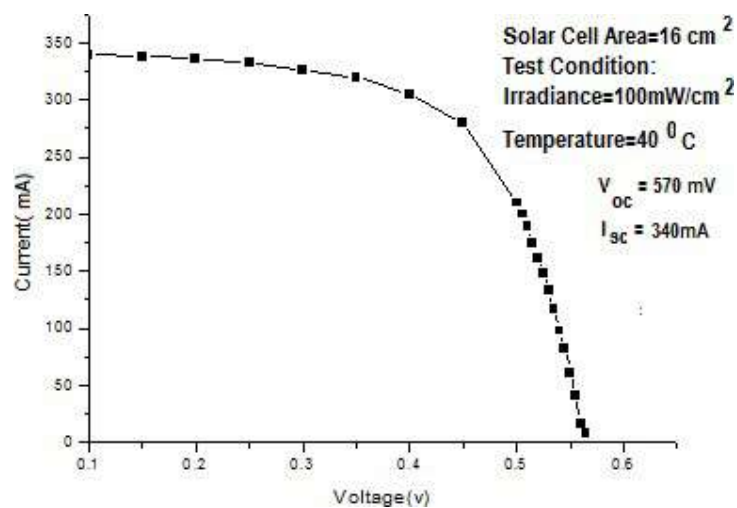


Fig. 9. I-V curve (inverted) of solar cell



### 5.1.3. Light intensity and temperature dependency of I-V characteristics of Solar Cell

#### 5.1.3.1 Temperature dependency of I-V characteristics: -

The solar cell I-V characteristics are temperature sensitive. We have studied the I-V characteristics of the crystalline Si solar cell at two different temperature  $40^{\circ}\text{C}$  and  $50^{\circ}\text{C}$  and calculated maximum power, efficiency, fill factor, shunt resistance and series resistance for the solar cell. At  $40^{\circ}\text{C}$  maximum power obtained from I-V characteristic of the sample Si solar cell having surface area  $4 \times 4 \text{ cm}^2$  has been obtained as 0.104 watt, while Fill factor as 0.6711, shunt resistance as 46.1 ohm, series resistance as 0.26 ohm and efficiency as 6.4%.

Whereas, at  $50^{\circ}\text{C}$  maximum power obtained from I-V characteristic of the sample Si solar cell has been obtained as 0.096 watt, while Fill factor as 0.6228, shunt resistance as 30.1 ohm, series resistance as 0.4 ohm and efficiency as 6.05%.

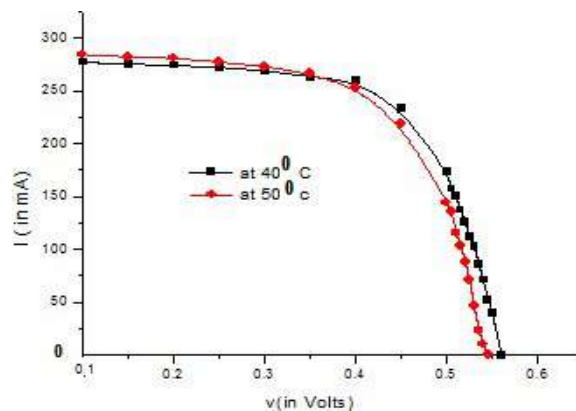
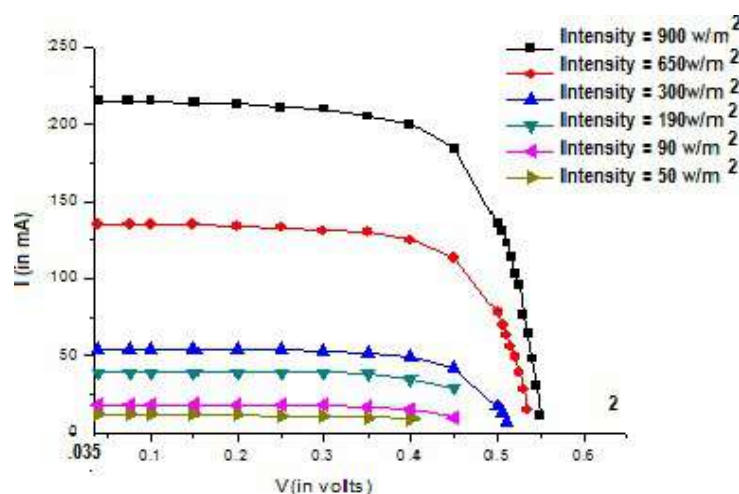


Fig 10: temperature dependency of I-V characteristics

#### 5.1.3.2 Light intensity dependency of I-V characteristics:

In our study we have changed the light intensity by putting a frosted glass plate and wire mesh filter between the lamps and the cell, which attenuate light uniformly at all wavelengths. Solar cell I-V characteristics are very much light intensity sensitive (Fig 11). From such experimental output one can infer how  $I_{sc}$  and  $V_{oc}$  depend on light intensity.



*Fig 11. Light intensity dependency study of I-V characteristics*

### **Conclusion:**

It has been observed that I-V characteristics of crystalline silicon solar cell are both temperature sensitive and light intensity sensitive. All the four important parameters of solar cell studied here are very much affected by light intensity and temperature. It has been observed that maximum power and efficiency of the cell has been reduced due to rise in temperature. While studying the characteristics of solar cell in dark and illuminated condition it has been observed that in dark, the current- voltage curve lies in 1<sup>st</sup> and 3<sup>rd</sup> quadrants. Whereas under illumination the curve rests in 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quadrants. This study is very much helpful for understanding the behaviour of cell in dark and under illumination, in particular parameters such as open circuit voltage, Short circuit current and fill factor FF. The entire study is very much helpful for solar cell designer to design an improved version of better efficient solar cell.

### **Acknowledgement**

The authors are very much grateful to the National Centre for Photovoltaic Research and Education (NCPRE), IIT, Bombay for supplying the necessary instruments for carrying the study successfully. Authors also gratefully acknowledge the authority of Ramthakur College as well as the head of the Department, Department of Physics, and Ramthakur College for availing the lab facility for the work. Constant encouragement of the Principal, Ramthakur College for carrying the work is highly acknowledged.

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## छान्दोग्य-बृहदारण्यकोपनिषदोः यज्ञतत्त्वस्य समीक्षात्मकध्ययनम्

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### संक्षेपसारः

यज्ञकर्म स्वभावत एव स्वयं चित्तकुहरे सहजातोपार्जितवासनामलप्रवाहस्य अपसारणेन यज्ञकर्मसम्पादितविमलधाराभिषेकेण विशुद्धमध्यात्मप्रसादप्रवाहमुन्मोचयति । उपनिषदि प्रायेण यज्ञतत्त्वस्य संक्रमः उपासनाविधिमुखेन प्रवर्तते । उपासनाविषयः छान्दोग्योपनिषदो बृहदारण्यकोपनिषदश्च विशिष्टं व्यापकं च स्थानमधिकृत्य वर्तते इति सुस्पष्टं प्रतीयते । अतः यज्ञतत्त्वस्य पवित्रताधानस्वभावत्वात् अष्टाध्यायसमन्वितायां सामवेदीयछान्दोग्योपनिषदि तथा अध्यायषट्कसंयुक्तायां वाजसनेयि-ब्राह्मणोपनिषदि बृहदारण्यकोपनिषदाख्यायां यज्ञतत्त्वं स्वस्वरूपेण उपासनाविषयत्वेन च उक्ते उपनिषद्-द्वये प्रायेण सर्वत्र परिव्याप्तमुपलभ्यते । तौलनिकविचारेण यज्ञतत्त्वस्य प्रभावः आत्मविज्ञानोत्पत्तौ छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च प्रायेण समभावेन आपततीति ग्रन्थद्वयस्य साभिनिवेशाध्ययनात् प्रतीयते । उपनिषद्-युगस्य उत्कर्षापकर्षविचारेऽपि एकतरपक्षनिष्ठन्यूनतादर्शनाभावात् उभयत्रैव महत्त्वमात्मतत्त्वविचारवैभवश्च यज्ञतत्त्वसहित-ब्रह्मविद्याप्रतिपादने उत्कर्षमात्राधिक्यं प्रतिभाति ।

### भूमिका:

छान्दोग्योपनिषदमुपजीव्य यज्ञतत्त्वस्य प्रासङ्गिकत्वं ब्रह्मविज्ञाने सविस्तरमस्मद्भूषणानिबन्धस्य चतुर्थाध्याये प्रतिपादितम् । एवमेव पञ्चमाध्याये बृहदारण्यकोपनिषदमाश्रित्य ब्रह्मविद्योत्पत्तौ यज्ञतत्त्वस्य सापेक्षत्वं सविशदमालोचितम् । छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च आत्मतत्त्वसमीक्षणमेव उपनिषत्तात्पर्यगतं सोपपत्तिकं प्रतिभाति । तथापि वेदसाहित्यस्य अखण्डदृष्ट्या यज्ञतत्त्वस्यापि प्रासङ्गिकता वारयितुं न शक्यते कथमपि । मन्त्रब्राह्मणात्मकवेदेषु धर्मब्रह्माख्यं काण्डद्वयमुपलभ्यते । धर्मतो ब्रह्मपर्यन्तं वेदप्रतिपाद्यविषयधाराभिव्यक्तिक्रमो विस्पष्टं परिलक्ष्यते । विषयधाराक्रमो मन्त्रब्राह्मणारण्यकोपनिषत्क्रमानुसारतो प्रवहनशीलः परिदृश्यते । धर्मप्रतिपाद्ययज्ञविषयस्य प्रतिपादनं

मन्त्रभागे ब्राह्मणभागे च विशेषतयैव चिह्नितमालक्ष्यते । ब्राह्मणभागे एव प्रसृतस्य आरण्यकभागस्य यज्ञतत्त्वविषयकरहस्यमयताव्याख्यानपरतायामवधानं दृष्टिपथमायाति । एवमेव उपनिषदपि यज्ञकर्मप्रासङ्गिकता नोपक्षीणा दृश्यते । आपाततः ज्ञानकर्मसमुच्चयसाधनमात्यन्तिकविरोधसीमायामेव अवतरति, ज्ञानकर्मणो स्वतन्त्रपरतन्त्रस्वभावस्य स्वाभाविकत्वेनैव अवभासनात् । तथापि नित्य-नैमित्तिक-काम्यभेदविशिष्टानां यज्ञकर्मणां यज्ञानुष्ठानुर्यजमानस्य ऋत्विजाञ्चेति चित्तशुद्धौ उपयोगोऽनिवार्यः । यज्ञकर्म स्वभावत एव स्वयं चित्तकुहरे सहजातोपार्जितवासनामलप्रवाहस्य अपसारणेन यज्ञकर्मसम्पादितविमलधाराभिषेकेण विशुद्धमध्यात्मप्रसादप्रवाहमुन्मोचयति । उपनिषदि प्रायेण यज्ञतत्त्वस्य संक्रमः उपासनाविधिमुखेन प्रवर्तते । उपासनाविषयः छान्दोग्योपनिषदो बृहदारण्यकोपनिषदश्च विशिष्टं व्यापकं च स्थानमधिकृत्य वर्तते इति सुस्पष्टं प्रतीयते । अतो यज्ञतत्त्वस्य पवित्रताधानस्वभावत्वात् अष्टाध्यायसमन्वितायां सामवेदीयछान्दोग्योपनिषदि तथा अध्यायषट्कसंयुक्तायां वाजसनेयिब्राह्मणोपनिषदि बृहदारण्यकोपनिषदाख्यायां यज्ञतत्त्वं स्वस्वरूपेण उपासनाविषयत्वेन च उक्ते उपनिषद्-द्वये प्रायेण सर्वत्र परिव्याप्तमुपलभ्यते । तौलनिकविचारेण यज्ञतत्त्वस्य प्रभावः आत्मविज्ञानोत्पत्तौ छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च प्रायेण समभावेन आपततीति ग्रन्थद्वयस्य साभिनिवेशाध्ययनात् प्रतीयते । उपनिषद्-युग्मस्य उत्कर्षपक्षविचारेऽपि एकतरपक्षनिष्ठन्यूनतादर्शनाभावात् उभयत्रैव महत्त्वमात्मतत्त्वविचारवैभवश्च यज्ञतत्त्वसहितब्रह्मविद्याप्रतिपादने उत्कर्षमात्राधिक्यं प्रतिभाति ।

सामवेदीया छान्दोग्योपनिषद् । उपनिषदियं छान्दोग्य-ब्राह्मणान्तर्भूता । ताण्ड्यमहाब्राह्मणसम्बद्धा चेति इयमुपनिषदिति कथ्यते । एतेन उपनिषदियं ब्राह्मणोपनिषदिति कथयितुं शक्यते ।

छान्दोग्योपनिषदियमारण्यकसम्बन्धेन सम्बद्धा इत्यपि अभिधीयते । Maurice Winternitzमहोदयानामुक्तिरत्रावधेया ---

“The Chāndogya-Upaniṣad, the first section of which is nothing but an Āraṇyaka, belongs to a Brāhmaṇa of the Sāmaveda – probably the Tāṇḍyamahā-Brāhmaṇa is an Āraṇyaka of the Jaiminīyaor Talavakāra – school of the Sāmaveda, and the Kena – Upaniṣad, also called Talavakāra-Upaniṣad, forms a part of it.”<sup>i</sup>

छान्दोग्योपनिषदः आरण्यकधर्मित्वं ग्रन्थस्य चतुर्थप्रपाठके षोडशखण्डे प्रथमकण्डिकायां शाङ्करभाष्ये विस्पष्टमुपलभ्यते । तत्रैव उपासनाप्रकरणे यज्ञोल्लेखपूर्वकं तस्य प्रासङ्गिकत्वमपि विचारितम् । रहस्य प्रकरणे यज्ञफलप्राप्तिवार्ता सङ्गतैव । आरण्यकत्वसामञ्जस्यात् आरण्यकधर्मः छान्दोग्योपनिषदपि

प्रवर्तते । प्रायश्चित्तविधिरूपसामञ्जस्यादपि छान्दोग्योपनिषदि उपासनाप्रकरणे यज्ञविधेरुल्लेखो न हि प्राकरणिकतां विजहाति । अस्य सर्वस्य समर्थकं शाङ्करभाष्यवचनं यथा —

“रहस्यप्रकरणे प्रसङ्गादारण्यकत्वसामान्याच्च यज्ञे क्षते उत्पन्ने व्याहृतयः प्रायश्चित्तार्था विधातव्याः । तदभिज्ञस्य च ऋत्विजो ब्राह्मणो मौनमित्यत इदमारभ्यते । एष ह वै एष वायुर्योऽयं पवते, अयं यज्ञः।”<sup>ii</sup>

सत्यव्रतसामश्रमिप्रमुखानां मतानुसारेण चत्वारिंशब्राह्मणं ताण्ड्यमहाब्राह्मणमेव, अतिबृहत्वात् च इदं महाब्राह्मणं प्रौढब्राह्मणं चेत्यभिधीयते । तत्र पञ्चविंशब्राह्मणं पञ्चविंशतिप्रपाठकसंयुक्तं, षड्विंशब्राह्मणं पञ्चप्रपाठकसमन्वितं, छान्दोग्यब्राह्मणञ्च अन्तिमं दशसंख्यकप्रपाठकसंयुक्तम् । तत्र छान्दोग्यब्राह्मणांशे आदिमप्रपाठकद्वयसंयुक्तं छान्दोग्यारण्यकम् । ततोऽवशिष्टप्रपाठकाष्टकसंयुक्तं छान्दोग्यब्राह्मणं छान्दोग्योपनिषद् इति नाम्ना प्रसिद्धम् । इयं हि उपनिषद् आरण्यकधर्मसमन्वितेति । अत्र दृष्टं यथा आचार्यशङ्करपादानामभिमतं तथैव एम. उइन्टारनिस्-महोदयानामपि ।

वस्तुतस्तु चत्वारिंशप्रपाठकसंयुक्तताण्ड्यमहाब्राह्मणस्य अन्तिमं दशप्रपाठकसंयुक्तं छान्दोग्यब्राह्मणमेव छान्दोग्यारण्यकनाम्ना परिचीयते । तत्र स्थितेषु दशप्रपाठकेषु आदिभूतं प्रपाठकद्वयं विशेषतः आरण्यकधर्मसंयुक्तम् । अवशिष्टैरष्टाभिः प्रपाठकैः विनिर्मिता छान्दोग्योपनिषदिति बोद्धव्यम् ।

बृहदारण्यकोपनिषद् वाजसनेयिब्राह्मणोपनिषद् । काण्व-माध्यन्दिनशाखाभेदात् उपनिषदियं काण्वशतपथब्राह्मणे सप्तदशकाण्डेऽन्तर्भवति । माध्यन्दिनशतपथब्राह्मणे तु चतुर्दशकाण्डे काण्वशाखीयशतपथब्राह्मणस्य सप्तदशकाण्डं माध्यन्दिनशाखीयशतपथ-ब्राह्मणस्य च चतुर्दशकाण्डमुभयमेव बृहदारण्यकशब्देन आख्यातम् । बृहदारण्यककाण्डमिदं नवसंख्यकप्रपाठकैः संयुक्तम् । नवप्रपाठकसमन्वितबृहदारण्यककाण्डस्य आदिभूत-प्रपाठकत्रयसंयुक्तांशः प्रवर्ग्यकाण्डनाम्ना प्रसिद्धः । प्रपाठकत्रयोपेतप्रवर्ग्यकाण्डं विशुद्धमारण्यकम् । अवशिष्टप्रपाठकषट्कसंयुक्तं बृहदारण्यककाण्डं बृहदारण्यकोपनिषदिति नाम्ना अभिधीयते । एतेनोपनिषदियमारण्यकधर्मसमाक्रान्तेति विस्पष्टं प्रतिभाति । तस्मात् सामवेदीया छान्दोग्योपनिषद् शुल्क्ययजुर्वेदीया च बृहदारण्यकोपनिषदारण्यकधर्मवैशिष्ट्येन समन्वितेति ब्राह्मण-आरण्यक-उपनिषदिति । त्रीणि विशेषणानि ग्रन्थद्वये समनुगतानि भवन्ति ।

ब्राह्मणस्वरूपतः छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि यज्ञतत्त्वं स्वत एवाविर्भवति । यज्ञतत्त्वस्यायमाविर्भावः उपासनाद्वारेण सूचितः । उभयत्रैव उपनिषद्-युगले सामान्यतः अभ्युपेतानां



सर्वयज्ञप्रकृतिभूतानामग्निहोत्रेष्टि-पशु-सोमरूपाणामुपस्थितिर्दृश्यते । प्रकृतिभूताः विकृतिभूताश्च ये यज्ञाः छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च उपस्थिताः उपलभ्यन्ते तेषां तुलनामूलकमालेख्यं प्रदीयते अधस्तात् । उभयोपनिषद्गततालिकाद्वयतः ग्रन्थविवृतानां यज्ञानां परिचयः सुस्पष्टं भवेत् ।

### तुलनामूलकमालेख्यम् ---

#### यज्ञनामानि

छान्दोग्योपनिषद्	बृहदारण्यकोपनिषद्
(१) अग्निहोत्रयज्ञः	(१) अग्निहोत्रयज्ञः
(२) दर्शपूर्णमासयज्ञाः	(२) दर्शपूर्णमासयज्ञाः
(३) सोमयज्ञः	(३) सोमयज्ञः
(४) ज्योतिष्टोमयज्ञः	(४) ज्योतिष्टोमयज्ञः
(५) पुरुषयज्ञः	(५) पुरुषयज्ञः
(६) पशुयज्ञः	(६) पशुयज्ञः
(७) अश्वमेधयज्ञः	(७) अश्वमेधयज्ञः
(८) विश्वजिद्-यज्ञः	(८) विश्वजिद्-यज्ञः
(९) चातुर्मास्ययज्ञः	(९) चातुर्मास्ययज्ञः
(१०) वैश्वदेवयज्ञः	(१०) वैश्वदेवयज्ञः
	(११) वाजपेययज्ञः
	(१२) पञ्चमहायज्ञाः
	(१३) पिण्डपितृयज्ञः
	(१४) वैश्वानरयज्ञः
	(१५) दर्वीहोमः/हविर्यज्ञः
	(१६) सर्वमेधयज्ञः
	(१७) राजसूययज्ञः

गवेषणानिबन्धस्य चतुर्थाध्याये छान्दोग्योपनिषत्प्रसङ्गेन पञ्चमाध्याये च बृहदारण्यकोपनिषत्प्रसङ्गेन यज्ञानां नामानि उत्सपरिचये सह वैशद्येन विवृतानि । अतस्तद् विवरणप्रदानात् विरतास्मि ।

अधुना उपनिषद्-द्वयोल्लिखितानां यज्ञानां स्वरूपविवरणं संक्षेपेण संकेतमात्रं प्रदीयते येन यज्ञलक्षणस्वरूपविज्ञानं बुद्धिगतं भूत्वा ब्रह्मविज्ञानोत्पत्तौ उपकारकत्वपक्षे स्पष्टार्थबोधं जनयेदिति । यज्ञानां क्रमिकस्वरूपविवरणम् ---

### (१) अग्निहोत्रयज्ञः

देवतोद्देशेन द्रव्यत्यागरूपयज्ञः श्रौतकर्मरूपेण प्रसिद्धः । सर्वाणि श्रौतकर्माणि कृतोद्वाहेन आहिताग्निना अनुष्ठेयानि आहिताग्निपुरुषः ब्राह्मणो क्षत्रियो वैश्यो वा भवति । ते हि त्रैवर्णिकाः पुरुषाः श्रुतिविहितमग्न्याधानकर्म अनुतिष्ठन्ति । यजमानस्य ब्राह्मणस्य पुरुषस्य इदमाधानं वसन्ते ऋतौ विहितम् । क्षत्रियस्य तु ग्रीष्मे वैश्यस्य शरदि । आधानमिदं त्रिविधं भवति । होमपूर्वाधानम्, इष्टिपूर्वाधानम्, सोमपूर्वाधानञ्चेति । अग्निहोत्रयज्ञारम्भसंकल्पपूर्वकं यदग्न्याधानं भवति ततद् होमपूर्वाधानम् । श्रुतिविहितया प्रक्रियया श्रौतकर्मणां यज्ञानामनुष्ठानार्थं त्रयोऽग्नयः समन्त्रम् अरणिमन्यनपूर्वकं निष्पाद्यन्ते । ते चाग्नयः गार्हपत्यः आहवनीयः दक्षिणाग्निश्चेति । अग्न्याधानानन्तरमेव अग्निहोत्रस्य भवति आरम्भः । अतः अग्निहोत्रयज्ञकर्मरम्भात्प्रागेव अग्न्याधानकर्म क्रियते इति निश्चयः । त्रैवर्णिककर्तव्ययज्ञस्य अग्निहोत्रं प्रथमस्थानं लभते । अग्निहोत्रकर्म नित्यकर्मसु परिगणितम् । अतएव अग्निहोत्रं यावज्जीवमनुष्ठेयम् । त्रैवर्णिकस्य कर्मेदमवश्यकर्तव्यम् । अग्निहोत्रकर्मणः सायं भवति आरम्भः । प्रातश्च भवति समाप्तिः । एवञ्च सायं प्रातरिति एकमेवकर्मनिष्पन्नं भवति । सायंकाले अस्तायमाने सूर्ये भवन्ति सायंहोमाः । प्रातःकाले च पूर्वस्यां दिशि सूर्यरश्मीनाम् आर्विभावसमये प्रातर्होमा अनुष्ठीयन्ते । होमयागेऽस्मिन् दुग्ध-दधि-पुरोडाशादिकम् आहुतिरूपेण अग्नौ प्रदीयते । सूर्यश्च अग्निश्च यागप्रतिपाद्ये देवते । अयं होमयज्ञः दर्वीहोमनाम्नापि कथितः । दर्वीसाहाय्येन अग्निकुण्डे आहुतिसमर्पणनात् दर्वी इति नाम निष्पन्नम् । होमजातीययज्ञानां प्रकृतिभूतमग्निहोत्रम् । अग्निहोत्रहोमयज्ञे पक्षद्वयम् । केचित् उदितहोमिनः केचित् च अनुदितहोमिनः । अग्निहोत्रमिदं सायंप्रातः यजमानः स्वयमेव जुहुयात् । फलार्थमेव यज्ञानुष्ठानम् । अतो यजमानः पशुकामः, स्वर्गकामो, इन्द्रियकामः, ग्रामकामः, अन्नकामः, ओजस्कामो, वलकामो वा तेजस्कामो वा दुग्ध-दधि-यवागू-ओदन-तण्डुल-घृतरूपाणि द्रव्याणि आहुतिरूपेण प्रयच्छेत् । अग्निहोत्रं सभार्यगृहस्थेनैव अनुष्ठेयम् । अग्निहोत्रं सदैव अनुष्ठातव्यम् । अत उक्तम् अविच्छेदेन यावज्जीवमग्निहोत्रं जुहुयादिति । आहिताग्निना यजमानेन अग्न्याधानकर्मणि अनुष्ठिते तत्रैवाग्नौ गृह्योक्तानि कर्माण्यपि अनुष्ठातुं

शक्यानि । अग्न्याधानं कर्म भवति श्रौतयज्ञकर्मानुष्ठानार्थम् । अग्निहोत्रयज्ञकर्मण्यपि अग्नित्रयस्य अग्निपञ्चकस्य वा सिद्धिरिति । अत्र अग्नित्रयं हि गार्हपत्या आहवनीयः दक्षिणाग्निश्चेति । वेदे यज्ञकर्मानुष्ठानार्थं ततोऽपि अधिका त्रयः अग्नयः स्वीक्रियन्ते । ते हि – सभ्यः आवसथ्यः, मार्जालीयश्चेति । नित्यकर्तव्यतया प्राप्ते अग्निहोत्रयागानुष्ठाने यजमानगृहस्थस्य श्रौतगृह्योभयात्मकं फलमुत्पद्यते । अग्निहोत्रेष्टिपशुसोमयज्ञेषु होमयज्ञरूपेण प्रसिद्धमिदमग्निहोत्रयज्ञकर्म प्राथम्येन ब्राह्मणेषु श्रौतसूत्रेषु च उल्लिखितं दृश्यते ।

### (२) दर्शपूर्णमासयज्ञः

इष्टियज्ञानां सर्वेषां प्रकृतिभूतदर्शपूर्णमासयज्ञः । कृतदारस्य त्रैवर्णिकस्य यज्ञेऽस्मिन् अधिकारः । वसन्तर्तौ विधिवदग्नीनाथाय अन्वारम्भणेष्टियज्ञमनुष्ठाय दर्शपूर्णमासौ आरभेत । पूर्वं पौर्णमासयज्ञमनुतिष्ठेत् । अनन्तरं दर्शयागम् । पूर्णमास्यां प्रातरारम्भः प्रतिपदि पुर्वाह्णे पौर्णमासयागकर्म समापनीयम् । तदनन्तरम् अमावस्यायां प्रातरारम्भः तदनन्तरं प्रतिपदि पुर्वाह्णे दर्शयागकर्म समापनीयम् । पौर्णमासयागे दर्शयागे च उभयत्र चत्वारः ऋत्विजः समप्राधान्यात् अपेक्ष्यन्ते । ते हि – अध्वर्युः ब्रह्मा होता आग्नीध्रश्चेति । पौर्णमास्यां त्रीणि प्रधानानि यागकर्माणि – अग्निदेवताकः पुरोडाशद्रव्यको प्रथमयागः, विष्णु-प्रजापत्यग्नीषोमान्यतमदेवताकः द्वितीय उपांशुयागः । अग्नीषोमदेवताकः पुरोडाशद्रव्यकस्तृतीययागः । एवमेव अमावस्यायां भवति प्रधानयागत्रयम् आग्नेयपुरोडाशयागः, ऐन्द्रदधियागः, ऐन्द्र एव च पयःयागः इति ।

नित्यकाम्यभेदेन दर्शपूर्णमासयज्ञः द्विविधः । प्रतिदर्शप्रतिपौर्णमासं च यावज्जीवनं पुरुषेण अनुष्ठेयं नित्यं यज्ञकर्म । यज्ञफलमुद्दिश्य अनुष्ठानविधानात् यज्ञस्य काम्यत्वम् । पूर्णमासयज्ञानुष्ठाने दर्शयागानुष्ठाने च अनुष्ठानविशेषाः ब्राह्मणग्रन्थेषु श्रौतसूत्रेषु यज्ञतत्त्वमूलकनिबन्धेषु च अनुसन्धेयाः ।

### (३) सोमयज्ञः

सोमरसप्रधानद्रव्यकयागः सोमयागः । वसन्तर्तौ सोमयागोचितकालः निर्धारितः । अग्न्याधानपूर्वकं ससंकल्पं सोमयागारम्भः क्रियेत । सर्वसोमयागप्रकृतिभूतः अग्निष्टोमाख्यः एकाहसोमयागः । अग्निष्टोमाख्येन स्तोत्रेण समाप्यमानत्वात् अयं क्रतुः ‘अग्निष्टोमसंस्थाकः’ इति ‘अग्निष्टोमः’ इति च नाम्ना अभिधीयते । सोमयागः नित्यं प्रतिवसन्तं त्रैवर्णिकेन आहिताग्निना कृतदारेण अवश्यं भवति अनुष्ठेयः । सोऽयं सोमयागः चतुर्विधः – एकाहः, अहीनः, साद्यस्क्र, सत्रञ्चेति । अग्निष्टोमाख्यः सोमयागः सप्तसंस्थः । सप्तसंस्थसोमयागानां प्रकृतिभूतसोमयागः अग्निष्टोमसंस्थाकः । तेषां सोमयागानां नामानि यथा – अग्निष्टोमः, उक्थः, षोडशी, अतिरात्रः, अत्यग्निष्टोमः, वाजपेयः, अप्तोर्यामः । एकाहसोमयागानां प्रकृतिभूतः

ज्योतिष्टोमयागः । ज्योतिष्टोमयागः पुनः संस्थाभेदेन भवति सप्तविधः – अग्निष्टोमः, उक्थः, षोडशी, अतिरात्रः, अत्यग्निष्टोमः, वाजपेयः, अप्तोर्यामश्चेति ।

#### (४) ज्योतिष्टोमयज्ञः

ज्योतिष्टोमयज्ञः सोमयज्ञविशेषः सोमरसद्रव्यस्य प्रधानाहुतिद्रव्यत्वेन अङ्गीकारात् । ज्योतिष्टोमयज्ञोऽयं एकाहसोमयज्ञः । ज्योतिष्टोमसोमयज्ञः अग्निष्टोमादिसप्तसंस्थसोमयज्ञानां प्रकृतिः । स्वर्गकामः स्वाराज्यकामो वा यजमानः ज्योतिष्टोमयज्ञानुष्ठाने प्रवर्तते । सर्वथा सार्वभौमत्वप्राप्तिरेव यजमानस्य यज्ञफलत्वेन निर्दिष्टं मीमांसकैः ।

#### (५) पुरुषयज्ञः

पुरुषमेधयज्ञः सोमयज्ञ एव । अयं पञ्चसुत्यात्मकः पञ्चाहः अहीनः क्रतुः । अत्र यज्ञे पुरुषपशवो विहिता भवन्ति । पुरुषपशूनां नारायणरूपेण ध्यानं कृत्वा परित्यागः कार्यः । ध्यानसमये पुरुषसूक्तमन्त्राः पठनीयाः । अतः पुरुषमेधे हिंसाया अवसर एव नास्ति । सर्वेषु वेदेषु श्रौतसूत्रेषु च यज्ञोपयोगिपुरुषपशून् एकत्र सङ्गीकृत्य नारायणरूपेण ध्यात्वा च पश्चाद् दक्षिणारूपेण ऋत्विग्भ्यो ब्राह्मणेभ्यश्च दद्यात् । अत्र यज्ञे पाशुकं कर्मानुष्ठाय सौमिका अपि व्यापाराः यथाविधि अनुष्ठेयाः । ऐतरेयब्राह्मणे शुनःशेषाख्याने पुरुषमेधस्य प्रदर्शितप्रमाणस्य युक्तियुक्ततायां वेदविद्वांस सहमतं न पोषयन्ति ।

#### (६) पशुयज्ञः

पशुयज्ञः निरूढपशुबन्धयागनाम्नापि प्रसिद्धः । अयं पशुयागः प्रतिसंवत्सरमनुष्ठेयः । ऋतौ ऋतौ, वर्षर्तौ, अमावस्यायां पूर्णिमायां वा अस्य पशुयागस्य अनुष्ठानं भवति । सर्वेषां पशुयागानां प्रकृतिभूतोऽग्नीषोमीयपशुयागः । सोऽयमग्नीषोमीयपशुयागः सोमयागाङ्गभूतः । अत्र पशुयज्ञे पशुः छागः । स तु पशुः साक्षात् आहुतिरूपेण यज्ञाग्नौ प्रदीयते । किन्तु वपाहृदयाद्यङ्गद्वारेणैव । अस्मिन् यज्ञे देवता इन्द्राग्नी, सूर्यः, प्रजापतिर्वा । यज्ञेऽस्मिन् षट्ऋत्विजः भवन्ति अध्वर्युः प्रतिप्रस्थाता होता, मैत्रावरुणः, प्रसास्ता ब्रह्मा आग्नीध्रश्च । पशुयागेऽस्मिन् बहूनि सन्ति अङ्गकर्माणि अग्निप्रणयादीति । पशुयज्ञोऽयं यथा निरूढपशुबन्धनाम्ना अग्नीषोमीयपशुयज्ञनाम्ना प्रथते । तथैव प्राजापत्यपशुयज्ञः दाक्षायणयज्ञः दैक्षो वेति संज्ञया ब्राह्मणेषु श्रौतसूत्रेषु चायं पशुयज्ञः अभिधीयते ।

दक्षो वा दाक्षायणो वा पशुयज्ञः पशुयागानां प्रकृतिरूपेण स्वीक्रियते । ड. योगीराजवसुविरचिते ‘वेदेरपरिचय’ इति ग्रन्थे दक्षपशुयागः पशुयज्ञानां प्रकृतिरूपेण उल्लिखितः । एतेन दाक्षायणयज्ञोऽपि पशुयज्ञप्रकृतिभूतो भवति । तथापि दाक्षायणयज्ञः इष्टियज्ञरूपेणापि उल्लिखितः दृश्यते । दाक्षायणयज्ञो न दर्शपूर्णमासाभ्यां भिन्नोऽपितु तत्रैव अभ्यासरूपगुणफलविधिः । गुणफलविधिरूपेण निर्दिष्टे दाक्षायणयज्ञे इष्टित्वं न केनापि वारयितुं शक्यते । मीमांसकानां मतानुसारं तु ‘दाक्षायणयज्ञः’ इत्येव व्यवहारः । ऐतरेयब्राह्मणे दाक्षायणयज्ञः दर्शपूर्णमासयोरेव गुणविकृतिरेव । तत्र ऐतरेयब्राह्मणे चतुर्दशाध्याये द्वितीयखण्डे एवमुक्तम् – ‘प्रवर्ग्यसाम्येन दाक्षायणयज्ञस्याग्निष्टोमप्राप्तिं दर्शयति – पयसा प्रवर्ग्यं चरन्ति पयसा दाक्षायणयज्ञे प्रवर्ग्यमेवानु दाक्षायणयज्ञोऽग्निष्टोममप्येति, इति ।’

### सायणभाष्यम्

“दर्शपूर्णमासयोरेव गुणविकृतिरूपः कश्चिद्दाक्षायणाख्यो यज्ञः । तथा च शाखान्तरे दर्शपूर्णमाससंनिधौ श्रूयते -- ‘दाक्षायणयज्ञेन स्वर्गकामो यजेत, इति तस्य च प्रवर्ग्यस्य च क्षीरद्रव्येण साम्यम् । पशुबन्धानाम् अग्निष्टोमत्वप्राप्तिः ऐतरेयब्राह्मणे एव उल्लिखिता ।” यथा ऐतरेयब्राह्मणे --

“पशुरुपवसथे भवति तमेवानु ये के च पशुबन्धास्ते सर्वेऽग्निष्टोममपियन्ति, इति ।”<sup>iii</sup>

माध्यन्दिनशतपथब्राह्मणे द्वितीयकाण्डे चतुर्थाध्यायस्य चतुर्थब्राह्मणे पञ्चविंशकण्डिकायां वसिष्ठापरनामको दाक्षायणयज्ञः प्रतिपादितः । दर्शपूर्णमासयोः गुणविकृतिभूतः दाक्षायणयज्ञो वस्तुतः प्राजापत्यपशुयज्ञ एव ।

### (७) अश्वमेधयज्ञः

अश्वमेधयज्ञः ‘राजयज्ञः’ इति नाम्नापि प्रसिद्धः । बृहदारण्यकोपनिषदः मधुकाण्डस्य भाष्यभूमिकायाम् अश्वमेधयज्ञकर्मणः श्रेष्ठत्वं प्रतिपादितम् । श्रीमद्भिः शङ्कराचार्यपादैः ‘सर्वेषाञ्च कर्मणां परं कर्म अश्वमेधः, समष्टि-व्यष्टि-प्राप्तिफलत्वात् ।’ भाष्यभूमिकायाः टीकायाम् आनन्दगिरिपादाचार्यैरपि अश्वमेधयज्ञस्य श्रेष्ठत्वमङ्गीकृत्य ‘राजयज्ञः’ विशेषणद्वारेण यज्ञोऽयमुल्लिखितः –

“राजयज्ञत्वाद् अश्वमेधस्य तदनधिकारिणामपि ब्राह्मणादीनां तत्फलार्थिनाम् अस्मादेव उपासनात् तदाप्तिरिति मत्वा श्रुतौ तदुपासनोक्तिरित्यर्थः इति ।”

सर्वाधिपत्यसंयुक्तसार्वभौमप्रभुत्वफललाभार्थमश्वमेधयज्ञानुष्ठानमैतरेयब्राह्मणे पञ्चत्रिंशाध्यायमारभ्य एकोनचत्वारिंशाध्यायपर्यन्तं परिव्याप्तं दृश्यते । तथा च उल्लिखितम् एकोनचत्वारिंशाध्याये –

“एतेन ह वा ऐन्द्रेण महाषिभेकेण तुरः कावषेयो

जनमेजयं पारिक्षितमभिषिषेच तस्माद् जनमेजयः

पारिक्षितः समन्तं सर्वतः पृथिवीं जयन्परीयायाश्चैन च मेध्येनेजे,” इति ।<sup>iv</sup>

अश्वमेधयज्ञस्य श्रेष्ठत्वसूचकं राजयज्ञविशेषणमैतरेयब्राह्मणेऽपि षट्त्रिंशाध्याये प्रथमखण्डे दृश्यते । यथा—

“फलाख्यचमसो भक्षो राज्ञो यज्ञे प्रकीर्तितः ।

उच्यते राजयज्ञेऽस्मिन् विशेषः स्तोत्रशस्त्रयोः । ” इति ।।

श्रौतकर्मसु सर्वश्रेष्ठोऽयं यज्ञः । अश्वमेधयज्ञः सोमयज्ञस्वरूपभूतः । एवमपि सवनीयपशोः अश्वस्य श्रेष्ठत्वेन परिगणनात् यज्ञोऽयम् ‘अश्वमेध’ इति संज्ञां लभते । एकछत्राधिपतिना सार्वभौमनरपतिना अनुष्ठेयोऽयं यज्ञः । अश्वमेधयज्ञकर्मदं श्रेष्ठतममिति श्रुतिस्मृतिपुराणादिषु सर्वत्रोक्तं भवति । यजुर्वेदस्योपक्रमे यज्ञकर्मणः श्रेष्ठतमत्वमङ्गीकृतम् --‘श्रेष्ठतमाय कर्मणे’ (१/१) इति ।<sup>v</sup> शतपथब्राह्मणेऽपि उक्तम् - ‘यज्ञो वै श्रेष्ठतमं कर्म’<sup>vi</sup> इति । सर्वफलप्रदेयोऽयं यज्ञः । राजसूयेन निर्दिष्टभूमिखण्डरूपराज्यलाभः भवति । अश्वमेधेन तु सर्वराजजयात् समग्रभूमण्डलस्य शासकरूपेण राजचक्रवर्तीति पदमर्यादाविभूषितो भवति । तस्मादुच्यते – ‘राजसूयेन राजा भवति, वाजपेयेन सम्राट् भवति, अश्वमेधेन सार्वभौमो भवतीति ।

**तथा चोक्तं माध्यन्दिनशतपथब्राह्मणे –**

“राजा एव राजसूयम् । राजा वै राजसूयेनेष्टा भवति । न वै ब्राह्मणो राज्यायालम् । अवरं वै राजसूयम्, परं वाजपेयम् ॥”<sup>vii</sup>

“राजा वै राजसूयेनेष्टा भवति सम्राड्वाजपेयेन । अवरं हि राज्यम्, परं साम्राज्यम् । कामयेत वै राजा सम्राड्भवितुम् । अवरं हि राज्यम्, परं साम्राज्यम्, न सम्राट् कामयेत राजा भवितुम् । अवरं हि राज्यम्, परं साम्राज्यम् ।”<sup>viii</sup>

“स यो वाजपेयेनेष्टा सम्राड्भवति । स इदं सर्वं संवृङ्क्ते । स कर्मणः कर्मणः पुरस्तादेवां सावित्रीमाहुतिं जुहोति “देव सवितः प्रसुव यज्ञं प्रसुव यज्ञपतिं भगाय” (वा.सं, १/१) इति<sup>ix</sup> ।

अपि च माध्यन्दिनशतपथब्राह्मणे त्रयोदशकाण्डे प्रथमप्रपाठके प्रथमब्राह्मणे तृतीयकण्डिकायामश्वमेधयज्ञफलमेवमुक्तम् –



“अभिधा असि” इति तस्मादश्वमेधयाजी सर्वा दिशोऽभिजयति । “भुवनमसि” – इति भुवनं तज्जयति ।” इति ।

एवमेव माध्यन्दिनशतपथब्राह्मणे त्रयोदशकाण्डे प्रथमप्रपाठके चतुर्थब्राह्मणे तृतीयकण्डिकायां पञ्चमब्राह्मणे प्रथमकण्डिकायां च अश्वमेधयज्ञफलम् –

“यद्वेव सायं घृतोर्जुहोति । प्रातरिष्टिभिर्जयते । योगक्षेममेव तद्यजमानः कल्पयते । तस्माद्यत्रैतेन यज्ञेन यजन्ते । क्लिप्तः । प्रजानां योगक्षेमो भवति ।”<sup>x</sup>

ऐतरेयब्राह्मणे एकोनचत्वारिंशाध्याये अष्टमे नवमे च खण्डे जनमेजय-शर्यात-शतानीक-आम्ब्याष्ठ्य-युधांश्रौष्टि-विश्वकर्म-पैजवन-मरुत-अङ्ग-भरत-दुर्मुख-जानन्तपि प्रमुखानां नृपाणामश्वमेधयज्ञानुष्ठानवार्ता विवृता ।

“\*\*\*\*\* अप वा एतस्माच्छ्री राष्ट्रं क्रामति । योऽश्वमेधेन यजते ।”<sup>xi</sup>

ऐतरेयब्राह्मणेऽपि सप्तत्रिंशाध्याये सप्तमखण्डे सहस्रदक्षिणयागस्य अश्वमेधाख्यस्य पारिक्षितजनमेजयानुष्ठितस्य सार्वभौमफलमेवमुक्तम् यथा –

“एतद्ध स्म वै तद्विद्वानाह जनमेजयः पारिक्षित \*\*\*\*\* सर्वमायुः सर्वभूमिर्भविष्यामीति, इति । \*\*\*\*\* सर्वमायुः सर्वभूमिर्भवति यमेवंविदो याजयन्ति याजयन्ति ” इति ।

**ऐतरेयब्राह्मणे एकोनचत्वारिंशाध्याये प्रथमखण्डे सायनभाष्यम् --**

‘सर्वा’ चतुःसागरपरिवेष्टिता समुद्रपर्यन्ता वा भूमिर्यस्याधीना सोऽयं सर्वभूमिस्तादृशेन भविष्यामि इति । “सर्वेषां राज्ञांमध्ये श्रेष्ठ्याद्याधिपत्यन्तगुणयुक्तो भवेत् । समन्तपर्यायि देशतः कालतः सर्वव्यापी स्यात् । समुद्रपर्यन्तं सार्वभौमत्वं देशव्याप्ति(विवक्षिता) । एवंविधो भूत्वा समुद्रपर्यन्ताया पृथिव्या एक एव राजा (सार्वभौमनरपतिः अश्वमेधे भविष्यति)।” इति ।

बृहदारण्यकोपनिषदि मधुकाण्डे प्रथमाध्याये प्रथमब्राह्मणे एव उपासनाप्रसङ्गेन अश्वमेधयज्ञस्य उपस्थितिर्दृश्यते । छान्दग्योपनिषदि च तृतीयप्रपाठके चतुर्थखण्डे प्रथमकण्डिकायामश्वमेधयज्ञे पारिप्लवासु रात्रिषु कर्माङ्गत्वेन इतिहासपुराणयोर्विनियोगः सिद्धः उल्लिखितश्च । शाङ्करभाष्यप्रामाण्यादपि सिद्धमेतत् । अत उपनिषद्-युगले उपयत्रैव अश्वमेधयज्ञस्य समुल्लेखात् सहस्रदक्षिणयागेषु सार्वभौमत्वप्रतिष्ठापकेषु च अन्नतमस्य अश्वमेधयज्ञस्य आश्वलायनश्रौतसूत्रग्रन्थेऽपि उत्तरार्धे चतुर्थाध्याये षष्ठकण्डिकातः दशमकण्डिकापर्यन्तं प्रतिपाद्यसफलोदययागस्य विवरणमुपलभ्यते । तत्र

पारिप्लवाख्यानमपि संवत्सरमहरहः कर्तव्यमिति सोदाहरणं वर्णितम् । वाल्मीकीये रामायणे उत्तरकाण्डे नवतितमे एकनवतितमे द्विनवतितमे च सर्गे रामकर्तृकम् अश्वमेधयज्ञानुष्ठानं विवृतम् उपलभ्यते ---

“एवं सुविहितो यज्ञो ह्यश्वमेधो ह्यवर्तत ।  
लक्ष्मणेनाभिगुप्ता सा हयचर्या प्रवर्तत ।  
ईदृशं राजसिंहस्य यज्ञप्रवरमुत्तमम् ॥”<sup>xii</sup>

वैयासिकीयेमहाभारते आश्वमेधिकपर्वणि आदिभूतेषु दशसु अध्यायेषु युधिष्ठिरकर्तृकमश्वमेधयज्ञानुष्ठानं समुपवर्णितमुपलभ्यते । तत्र युधिष्ठिरं प्रति श्रीव्यासदेवेन समुच्चारितं श्लोकत्रयं प्रधानतया अश्वमेधयज्ञविषयकमवधेयम् ।

अपरं श्लोकद्वयं तु युधिष्ठिरोक्तमपि विज्ञातव्यम् । श्रीव्यासदेवस्य उक्तिः—

“राजसूयाश्वमेधौ च सर्वमेधञ्च भारत ।  
नवमेधञ्च नृपते त्वमाहर युधिष्ठिर ॥”<sup>xiii</sup>  
“यजस्व वाजिमेधेन विधिवद् दक्षिणावता ।  
बहुकामात्रवित्तेन रामो राशरथिर्यथा ॥”<sup>xiv</sup>  
“यथा च भरतो राजा दौष्मन्तिः पृथिवीपतिः ।  
शाकुन्तलो महावीर्यस्तव पूर्वपितामहः ॥”<sup>xv</sup>

### युधिष्ठिरोक्ति :

“असंशयं वाजिमेधः पावयेत् पृथिवीपतिः ।  
अभिप्रायस्तु मे कश्चित् तं त्वं श्रौतुमिहार्हसि ॥”<sup>xvi</sup>  
“पृथिवी दक्षिणा चात्र विधिः प्रथमकल्पितः ।  
विद्वद्भिः परिदृष्टोऽयं शिष्टो विधिविपर्ययः ॥”<sup>xvii</sup>

वेदोद्गीतेषु यज्ञेषु अश्वमेधयागस्य महत्त्वं वेदसाम्राज्यमतिक्रम्य रामायणमहाभारताख्ये आर्षमहाकाव्यद्वये कीर्तितमिति सुधियां धीकर्षणार्थमस्माभिर्निवेदितम् ।

यज्ञस्याङ्गभूताः क्रतोः पशवो, वहवो ग्राम्या आरण्याश्च भवन्ति । तेषु अश्व एव प्रथमः प्रधानभूतश्च । अश्वमेधयज्ञस्य क्रियानुष्ठानप्रणाली व्यापारवाहुत्यसंयुक्ता ब्राह्मण- श्रौतसूत्रादिषु वैशद्येन प्रतिपादिता । यज्ञोऽयं सौमिकव्यापारैः सह सवनीयपशुभिः प्राजापत्यपशुभिर्वा संवत्सरं यावत् यजेत । अखिले भूमण्डले एकातपत्रप्रभूत्वप्रतिष्ठैव अश्वमेधयज्ञफलमित्यवधेयम् ।

### (८) विश्वजित्-यज्ञः

सत्रयज्ञः सोमयज्ञविशेषः । तत्र संवत्सरसाध्यसत्रयज्ञः गवामयनसंज्ञया प्रसिद्धः । गवामयनाख्यसत्रयज्ञ एकोत्तरषष्ट्यधिकशतत्रयदिनसाध्यः (३६१) सोऽयं क्रतुस्त्रिधा विभक्तः – पूर्वपक्षः, विषुवान्, उत्तरपक्ष इति । तत्र अशीत्यधिकशतदिनसाध्यम् (१८०) पूर्वं पक्षः । तदनन्तरम् एकमहः यस्य विषुवान् इति संज्ञा । ततोऽशीत्युत्ताशतदिनसाध्यम् (१८०) उत्तरपक्षः । समुदितस्य गवामयनम् इति संज्ञा । प्रतिदिनमेव सोमयज्ञसाध्यं सवनकर्म अनुष्ठीयते । उत्तरपक्षसि प्रथमतः स्वरसामसंज्ञकानि त्रीणि अहानि । ततो विश्वजित्संज्ञकम् एकम् अहः । अतः संवत्सरसाध्ये गवामयनाख्ये सोमसत्रयज्ञे उत्तरपक्षीयदिनत्रयसाध्य-स्वरसामसंज्ञकसोमयज्ञानुष्ठानादनन्तरं विश्वजित्-संज्ञकः एकाहः सोमयज्ञः अनुष्ठीयते । अतश्च विश्वजित् एकाहसोमयज्ञविशेषः गवामयनसत्रयज्ञस्य अङ्गभूतः । विश्वजिदिति यज्ञः सर्वस्वदक्षिणाकत्वात् सर्वस्वदक्षिणयज्ञरूपेणापि प्रसिद्धः । सार्वभौमसाम्राज्यप्राप्तिः विश्वजिद्-यज्ञफलमिति वेदितव्यम् । अश्वमेधयज्ञवत् सर्वराजविजयात् राजचक्रवर्तित्वम् एकातपत्रप्रभुत्वञ्च विश्वजितः सिद्धं भवतीति । दिग्-विजयान्तरं सार्वभौमस्य सम्राजः रघोः विश्वजिद्-यज्ञस्य अनुष्ठानं कालिदासोद्धृतश्लोकवचने प्रकाशते । यथा

“स विश्वजितमाजहे यज्ञं सर्वस्वदक्षिणम् ।

आदानं हि विसर्गाय सतां वारिमुचामिव ॥”<sup>xviii</sup>

“तमध्वरे विश्वजिति क्षितीशं निःशेषविश्राणितकोषजातम् ।

उपात्तविद्यो गुरुदक्षिणार्थी कौत्सः प्रपेदे वरतन्तुशिष्यः ॥”<sup>xix</sup>

द्विविधो हि विश्वजित् । अतिरात्रसंस्थोऽग्निष्टोमसंस्थश्च । तत्र अतिरात्रसंस्थः विश्वजिद्-यज्ञः स्वतन्त्र एकाहः । संवत्सरसत्रगतोऽग्निष्टोमसंस्थ एकाहः विश्वजिद्-यज्ञो न तथा । ऐतरेयब्राह्मणे त्रिशाध्याये पञ्चमखण्डे एकाहविश्वजिद्-यज्ञस्य द्वैविध्यं सयुक्तिकं वैशद्येन प्रतिपादितम् ।

### (९) चातुर्मास्ययज्ञः

चातुर्मास्ययज्ञकर्म चतुर्षु पर्वसु अनुष्ठेयानि । अतः तानि कर्माणि चातुर्मास्यानि इति कथ्यन्ते । चातुर्मास्यानि यज्ञकर्माणि प्रथमतः द्विविधानि । स्वतन्त्राणि राजसूयान्तर्गतानि च । स्वतन्त्रेषु चातुर्मास्यकर्मसु त्रैवर्णिकानामधिकारोऽस्ति । तानि च अग्निहोत्र-दर्शपूर्णमासवत् नित्यानि प्रतिसंवत्सरं अनुष्ठेयानि । राजसूयान्तर्गतेषु चातुर्मास्ययज्ञकर्मसु ब्राह्मणवैश्ययोरधिकारः नास्ति । पर्वचतुष्टयविभक्तानि चातुर्मास्ययज्ञकर्माणि यथाक्रमम् – वैश्वदेवः, वरुणप्रघासाः, शाकमेधाः, शुनासीयरीश्चेति । पूर्णिमापर्वसु अनुष्ठेयत्वात् ते यज्ञाः पर्वशब्देन उच्यन्ते । इष्टिरूपेषु चातुर्मास्येषु चत्वार एव ऋत्विजो भवन्ति परं प्रतिप्रस्थाता एकोऽधिको भवति । आहुतिद्रव्यानुसारतः चातुर्मास्ययज्ञः ऐष्टिक-पाशुक-सौमिकभेदेन त्रिप्रकारः । ऐष्टिके चातुर्मास्ये चरुः पुरोडाशः आमीक्षा पृषदाज्यप्रभृतिकम् आहुतिद्रव्यं भवति । पाशुके चातुर्मास्ये प्रत्येकपर्वणि एकैकशः पशु आहुतिद्रव्यत्वेन विधीयते । सौमिकचातुर्मास्ये सप्तसु दिनेषु सप्तसोमयज्ञाः अनुष्ठीयन्ते । तत्र सवनीयपशवस्तथा सवनत्रये सोमरसः द्रव्यम् आहुतिरूपेण विधीयते ।

### (१०) वैश्वदेवयज्ञः

विश्वेभ्यो देवेभ्यो देयो वलिः इत्यर्थे अणिति तद्धितप्रत्यययोगात् वैश्वदेव इति पदं निष्पन्नम् । विश्वदेवाः देवतासमूहात्मकदेवतागणरूपः वा । वैश्वदेवयज्ञोऽयम् इष्टियज्ञरूपेण प्रसिद्धः । चातुर्मास्येष्टियज्ञे वैश्वदेवः वरुणप्रघासाः शाकमेधः शुनासीरीय इति चत्वारि पर्वाणि भवन्ति । पर्वशब्देन यागः उच्यते । पूर्वोक्ताः चत्वारो यागाः इष्टिरूपाः । उक्तपर्वेष्टिचतुष्टये वैश्वदेवपर्वेष्टिः फाल्गुन्यां चैत्र्यां वा पूर्णिमायामनुष्ठीयते । अस्मिन् वैश्वदेवपर्वेष्टियज्ञे चरुः पुरोडाशः आमीक्षा इति द्रव्याणि आहुतिरूपेण प्रदीयन्ते यज्ञाग्नौ । अग्निः, सोमः, सविता, सरस्वती, पुषा, मरुतः, विश्वेदेवाः द्यावापृथिव्यौ इति च अत्र यज्ञे क्रमेण देवता भवन्ति ।

चातुर्मास्यान्तर्भूता वैश्वदेवपर्वेष्टिरियमिष्टियज्ञप्रकृतिभूतदर्शपूर्णमासेष्टियागस्य विकृतिपक्षे आपतति ।

### (११) वाजपेययज्ञः

वाजपेययज्ञः सोमयज्ञविशेषः । अग्निष्टोमादीनां सप्तसंस्थसोमयज्ञानां प्रकृतिः ज्योतिष्टोमयज्ञः । पुनरेव अग्निष्टोमयज्ञः उक्थादीनां षट्संख्यकानां सोमयज्ञानां प्रकृतिः । सप्तसंस्थसोमयज्ञेषु वाजपेययज्ञः षष्ठस्थानं लभते । सोमयज्ञे सवनत्रयमनुष्ठीयते । तत् प्रातःसवनम्, माध्यदिनसवनम्, सायंसवनञ्चेति । वाजपेयसंज्ञकस्तोत्रेण वाजपेययज्ञस्य समाप्तिवशात् यज्ञोऽयं संस्थान्तर्गतरूपेण गण्यते । सवनामकः यज्ञमध्येऽपि अस्य यज्ञस्य गणना दृश्यते । बहवः सन्ति यज्ञस्यास्य इतिकर्तव्यबहुलव्यापाराः । वाजपेययज्ञस्य साम्राज्यप्राप्तिरेव फलत्वेन कल्प्यते । राजसूययज्ञस्य यथा राज्यप्राप्तिः, तथा वाजपेययज्ञस्य

सार्वभौमसाम्राज्यप्राप्तिरेव यज्ञफलत्वेन मीमांसकैः निर्धार्यते । यज्ञस्यास्य वाजपेय-कुरुवाजपेयरूपेण द्वैविध्यं भवति ।

### (१२) पञ्चमहायज्ञाः

पञ्चमहायज्ञाः बृहदारण्यकोपनिषदि उपासनाप्रसङ्गेन उपस्थापिताः । एतेषां पञ्चमहायज्ञानां पूर्णविवरणं शतपथमाध्यन्दिने एकादशकाण्डे तृतीयप्रपाठके अष्टमब्राह्मणे नवसु कण्डिकासु प्रदत्तम् । एते हि पञ्चमहायज्ञाः यावज्जीवमनुष्ठेयाः । एतेषामनुष्ठाने ऋत्विजः नापेक्ष्यन्ते । शतपथब्राह्मणे एते हि महायज्ञाः महासत्ररूपेणापि उल्लिखिताः । इमानि कर्माणि गृह्योक्तानि वैवाहिकाग्नौ सम्पाद्यानि । यावज्जीवमनुष्ठेयत्वात् होत्रादीनां ऋत्विजाम् अनपेक्षत्वात् च महच्छब्दस्य यज्ञशब्देन सत्रशब्देन च संयोगः स्तुत्यर्थकत्वेन गौणत्वेन च तात्पर्यावहः । एते हि पञ्चमहायज्ञा एवक्रमेण उल्लिखिताः शतपथब्राह्मणे -- भूतयज्ञः, मनुष्ययज्ञः, पितृयज्ञः, देवयज्ञः, ब्रह्मयज्ञ इति । “भूतानां तृप्तिकरो यज्ञः भूतयज्ञः ।” “इदं भूतेभ्यः” इति संकल्प्य प्रत्यहं यत् “भूतेभ्यो बलिहरणम्” तथा तेनैव बलिहरणेन एवमुक्तम् “भूतयज्ञम्” सम्यक् पुरुषः प्राप्नोति । भूतान्युद्दिश्य बलिहरणमेव भूतयज्ञ इत्यर्थः । मनुष्यानुद्दिश्य “आ उदकपात्रात्” उदकपूरितं पात्रम् यत् तत् उदपात्रम् उदकपात्रावधि यत् ओदनादिकं दद्यात् स मनुष्ययज्ञ इत्यर्थः । पितृन् उद्दिश्य प्रत्यहं सदाचारेण अन्नादिकम् उदपात्रपर्यन्तं दद्यात् इति यत् स पितृयज्ञ इत्यर्थः । प्रत्यहं स्वाहाकारेण देवान् उद्दिश्य यत् काष्ठपर्यन्तं हविः दद्यात् स देवयज्ञ इत्यर्थः । इत्थं प्रत्यहं भूतयज्ञः मनुष्ययज्ञः पितृयज्ञः देवयज्ञ इति चत्वारो महायज्ञाः अनुष्ठेयाः । एतेषां प्रतिपादनानन्तरं शतपथब्राह्मणे ब्रह्मयज्ञस्य वैशद्येन विवरणं प्रदत्तम् । संक्षेपतस्तु ब्रह्मणो वेदस्य अध्ययनमध्यापनं च ब्रह्मयज्ञः । तस्य देवर्षिपितृगणतृप्तिकरत्वात् यज्ञत्वम् । “स्वाध्यायो वै ब्रह्मयज्ञः ।” स्वशाखाध्ययनं ब्रह्मयज्ञ इत्यथोऽपि युज्यते । ब्रह्मयज्ञयाजी वित्तेन पूर्णाम् इमां समग्रां पृथिवीं जयति । अर्थात् योगक्षमेण सम्पन्निश्च अतुलाभिः संयुज्यते । एतदेव ब्रह्मयज्ञस्वाध्यायस्य फलमिति शतपथब्राह्मणतः अवगन्तव्यम् ।

पारस्करगृह्यसूत्रेषु एतेषां पञ्चमहायज्ञानां वर्णनमुपलभ्यते । विंशतिसंख्यकस्मृतिसंहितासु संहिताचतुष्टये पञ्चमहायज्ञानां विवरणमुपलभ्यते । एतेन मनुसंहितायां याज्ञवल्क्यसंहितायां कात्यायनसंहितायां शङ्खसंहितायां च पञ्चमहायज्ञविवरणं द्रष्टुं पार्यते । याज्ञवल्क्य-संहितायामाचाराध्याये गृहस्थधर्मप्रकरणे पञ्चमहायज्ञा वैशद्येन प्रतिपादिता ।

**मनुसंहितायाः तृतीयाध्याये पञ्चमहायज्ञानां विवरणम् एवं प्रदर्शितमास्ते—**

“वैवाहिकेऽग्नौ कुर्वीत गृह्यं कर्म यथाविधि ।

पञ्चयज्ञविधानञ्च पंक्तिञ्चान्वाहिकीं गृही ॥”<sup>xx</sup>

“पञ्चसूना गृहस्थस्य चुल्ली पेषण्युपस्करः ।  
 कण्डनी चोदकुम्भश्च वध्यते यास्तु वाहयन् ॥”<sup>xxi</sup>  
 “तासां क्रमेण सर्वासां निष्कृत्यर्थं महर्षिभिः ।  
 पञ्च क्लप्ता महायज्ञाः प्रत्यहं गृहमेधिनाम् ॥”<sup>xxii</sup>  
 “अध्यापनं ब्रह्मयज्ञः पितृयज्ञस्तु तर्पणम् ।  
 होमो दैवो बलिर्भौतो नृयज्ञोऽतिथिपूजनम् ॥”<sup>xxiii</sup>  
 “पञ्चैतान् यो महायज्ञान् न हापयति शक्तितः ।  
 स गृहेऽपि वसन्नित्यं सूनादोषैर्न लिप्यते ॥”<sup>xxiv</sup>  
 “देवतातिथिभृत्यानां पितृणामात्मनश्च यः ।  
 न निर्वपति पञ्चानामुच्छसन् न स जीवति ॥”<sup>xxv</sup>  
 अहुतञ्च हुतञ्चैव तथा प्रहुतमेव च ।  
 ब्राह्मं हुतं प्राशितञ्च पञ्च यज्ञान् प्रचक्षते ॥”<sup>xxvi</sup>  
 “जपोऽहुतो हुतो होमः प्रहुतो भौतिको बलिः ।  
 ब्राह्मं हुतं दिजाग्राच्च प्राशितं पितृतर्पणम् ॥”<sup>xxvii</sup>  
 “स्वाध्याये नित्ययुक्तः स्थादैवे चैवेह कर्मणि ।  
 दैवकर्मणि युक्तो हि विभर्त्तिदं चराचरम् ॥”<sup>xxviii</sup>

### याज्ञवल्क्यस्मृतौ पठिता पञ्चमहायज्ञाः

“बलिकर्मस्वधाहोमस्वाध्यायातिथिसक्रियाः ।  
 भूतपित्रमरब्रह्ममनुष्याणां महामखाः ॥”<sup>xxix</sup>

“बलीत्यादि । बलिकर्म भूतयज्ञः । स्वधा पितृयज्ञः । होमो देवयज्ञः । स्वाध्यायो ब्रह्मयज्ञः ।  
 अतिथिसक्रिया मनुष्ययज्ञः । एते पञ्च महायज्ञा अहरहः कर्तव्या नित्यत्वात् । यत्पुनरेषां फलश्रवणं तदेषां  
पावनत्वख्यापनार्थं न काम्यत्वप्रतिपादनाय ॥”<sup>xxx</sup>

### कात्यायनस्मृतौ पञ्चमहायज्ञविवरणम्

“पञ्चानामथ सत्राणां महतामुच्यते विधिः ।

यैरिष्टा सततं विप्रः प्राप्नुयात् सद्म शाश्वतम् ॥”<sup>xxxix</sup>

“देवभूतपितृब्रह्ममनुष्याणामनुक्रमात् ।

महासत्राणि जानीयात् त एवेह महामखाः ॥”<sup>xxxix</sup>

“अध्यापनं ब्रह्मयज्ञः पितृयज्ञस्तु तर्पणम् ।

हौमो दैवो बलिर्भौतो नृयज्ञोऽतिथिपूजनम् ॥”<sup>xxxix</sup>

“श्राद्धं वा पितृयज्ञः स्यात् पित्र्यो बलिरथापि वा ।

यश्च श्रुतिजपः प्रोक्तो ब्रह्मयज्ञः स वोच्यते ॥”<sup>xxxix</sup>

### शङ्खस्मृतौ पञ्चमहायज्ञप्रसङ्गो यथा –

“पञ्चसूना गृहस्थस्य चूल्ली पेषण्युपस्करः ।

कण्डनी चोदकुम्भश्च तस्य पापस्य शान्तये ॥”<sup>xxxv</sup>

“पञ्चयज्ञविधानञ्च गृही नित्यं न हापयेत् ।

पञ्चयज्ञविधानेन तत्पापं तस्य नश्यति ॥”<sup>xxxvi</sup>

देवयज्ञो भूतयज्ञः पितृयज्ञस्तथैव च ।

ब्रह्मयज्ञो नृयज्ञश्च पञ्च यज्ञाः प्रकीर्तिताः ॥”<sup>xxxvii</sup>

“होमो दैवो बलिर्भौतः पित्र्यः पिण्डक्रिया स्मृतः ।

स्वाध्यायो ब्रह्मयज्ञश्च नृयज्ञोऽतिथिपूजनम् ॥”<sup>xxxviii</sup>

पञ्चमहायज्ञाः पञ्चमहासत्राणि वा याज्ञिकमीमांसासिद्धान्तविलक्षणानि । यज्ञमीमांसासिद्धान्तानुसारेण यज्ञानुष्ठाने यजमानः ऋत्विजः द्रव्यं देवता यज्ञाग्नयश्च अपेक्ष्यन्ते । देवतोद्देशेन द्रव्यत्यागः श्रुतिविहितप्रक्रियया प्रदीप्ते गार्हपत्याद्यग्निषु सम्पद्यते । नेयं प्रक्रिया पञ्चमहायज्ञेषु अनुसृता भवति । परन्तु केवलं देवयज्ञे एव होमपद्धतिर्विधिपूर्वकं समादीयते ।

वस्तुतस्तु पञ्चस्वेव पूर्वोक्तेषु महायज्ञेषु यज्ञशब्दप्रयोगः यज्ञसादृश्यात् गौण एव । याज्ञिकमीमांसानये देवानुद्दिश्य गार्हपत्यादिषु श्रौताग्निषु द्रव्यत्यागः यज्ञशब्देन परिभाषितः । आम्रायस्य क्रियार्थत्वादत्र यज्ञानुष्ठाने त्यागो हि क्रियास्वरूपभूतः पञ्चमहायज्ञेषु अपि सामान्यतः पशुपक्ष्यादिभूतान्युद्दिश्य अन्नदानात्मकत्यागरूपकर्म भूतयज्ञानाम्ना सिद्धम् । एवमेव मनुष्ययज्ञे अतिथिरूपमनुष्यानुद्दिश्य अन्नदानं, पितृयज्ञे पितृपुरुषाणां तृप्तिकरत्वेन तानुद्दिश्य अन्नदानं, देवयज्ञे वैश्वदेवादिदेवानुद्दिश्य अन्नदानं क्रियते । अतएव पञ्चयज्ञाः देवतोद्देशेन द्रव्यत्यागरूपयज्ञसादृश्यं भजन्ते । स्वाध्यायरूपवेदस्य अध्ययनम्



अध्यापनञ्च अध्ययनाध्यापनक्रियासाध्यम् । अध्यापनक्रियायाञ्च पाठदानमभिमतम् । अध्ययनक्रिया ज्ञानाधारात्मकं स्वात्मानमुद्दिश्य आत्मनि पाठजन्यक्रियाफलरूपज्ञानजनकत्वेनाभिप्रेता । एवं न केवलं देवयज्ञे देवानुद्दिश्यद्रव्यत्यागरूपयज्ञसादृश्यम्, अपि तु भूतयज्ञ-मनुष्ययज्ञ-पितृयज्ञ-ब्रह्मयज्ञेष्वपि मीमांसानयसिद्धयज्ञलक्षणस्य यथार्थतः अननुगमेऽपि सादृश्यसम्बन्धयोगेन यज्ञत्वसिद्धौ न कापि हानिः । शतपथब्राह्मणे संहितासु च ब्रह्मयज्ञस्य सुमहत्तात्पर्यं गौरवञ्च अङ्गीकृतम् । स्वाध्यायरूपवेदस्य अध्ययनम् अध्यापनञ्च ब्रह्मयज्ञः । यज्ञमीमांसायामपि वेदमन्त्रविनियोगपक्षे वेदमन्त्रभागस्य समग्रस्य कृत्स्नाया वा वेदसंहिताया आम्रातक्रमेणैव जपः अर्थात् पाठः सामान्यविनियोगशब्देन परिभाषितो भवति । मन्त्रभागस्यैव व्याख्यानमूलकांशो ब्राह्मणशब्दशब्दितः । ब्राह्मणादेव प्रादुर्भवन्ति आरण्यकम् उपनिषदश्चेति । अतश्च वेदव्याख्यानार्थं प्रजायन्ते षट् वेदाङ्गानि । अस्मादेव कारणात् पञ्चमहायज्ञेषु ब्रह्मयज्ञस्य सर्वमहत्त्वं सम्यगुपपद्यते । तस्मात् च ब्राह्मणे स्मृतिग्रन्थेषु च ब्रह्मयज्ञस्य वैशद्येन पृथक्तया प्रतिपादनमुपलभ्यते । अपि च शतपथमाध्यन्दिनब्राह्मणे बृहदारण्यकोपनिषदि च पञ्चमहायज्ञानां समुपस्थापनं मीमांसकमतसम्मतयज्ञलक्षणेन मुख्यतः अनन्वितमपि पञ्चमहायज्ञानां मीमांसानयसिद्धयज्ञानामपि उभयेषां चित्तशुद्धिकरत्वेन उपासनाद्वारेण ब्रह्मविद्याया आरादुपकारकत्वेन उपयोगसाम्यं विस्पष्टं प्रतिभाति । अतः पञ्चमहायज्ञानां बृहदारण्यकोपनिषदि उपस्थापनविवरणप्रसङ्गः युक्तियुक्त एवेति दिक् ।

### (१३) पिण्डपितृयज्ञः

पिण्डपितृयज्ञ इष्टियज्ञेषु अन्तर्भवति । पिण्डयुक्तः पितृयज्ञ इति विग्रहे पिण्डपितृयज्ञपदं सम्पद्यते । होमानन्तरं पितृन् उद्दिश्य पिण्डदानविधानात् पिण्डपितृयज्ञ नाम सार्थकं भवति । अमावस्यायां सायंकाले यज्ञोऽयमनुष्ठेयः । चातुर्मास्येष्टियागे साकमेधपर्वान्तर्गतः पितृयज्ञो महापितृयज्ञो वेति नाम्ना प्रसिद्धः कश्चिद् यागः वर्तते । अमावस्यायामनुष्ठेयपिण्डपितृयज्ञादयं भिद्यते । दक्षिणाग्निमाश्रित्य पितृयज्ञसम्बन्धीनि सर्वकर्माणि अनुष्ठेयानि पितृयज्ञे हविस्त्रयं पुरोडाशः, भ्रष्टयवाः, पयसा मिश्रितानि भर्जितयवचूर्णानि चेति । सोमः पितृमान्, पितरो वहिर्षदः, पितरोऽग्निष्वात्ता इति क्रमेण देवताः । अत्र यागे यजमानः पिण्डत्रयं निर्माय पितृपितामहप्रपितामहेभ्य तान् पिण्डान् यथावद् दद्यात् । एवमन्येऽपि सन्ति वहवः व्यापाराः येषामपि अनुष्ठानं यथाविहितं कर्तव्यम् । पिण्डपितृयज्ञेन सह अनुष्ठानपद्धतिगतं सादृश्यमस्ति क्वचित् क्वचित् अस्य यागस्य । नामतोऽपि पिण्डशब्दं विहाय यागयोरनयोः सादृश्यं वर्तते ।

### (१४) वैश्वानरेष्टियज्ञः

यज्ञोऽयम् इष्टिषु अन्तर्भवति । इष्टिरूपत्वात् वैश्वानरयज्ञे चत्वार एव भवन्ति ऋत्विजः । वैश्वानरेष्टियागे वैश्वानरः प्रधानदेवता । पुरोडाशः चरुश्च आहुतिद्रव्यम् । पूर्णिमायां वैश्वदेवपर्वणोऽनुष्ठानात् प्राक् चतुर्दश्यां वैश्वानरपार्वनेष्टिरनुष्ठेया । इष्टिरियं कर्मरम्भ- योग्यतासम्पादिका । अत्रेष्टौ वैश्वानरः पर्जन्यश्च देवते । अग्निचयनप्रसङ्गे वैश्वानरयज्ञस्य अस्ति उपयोगः । अग्निचयने चित्योऽग्निराहवनीयो भवति । चितेरुपरि गार्हपत्योऽग्निरपि भवति । तत्र आहवनीयाग्नौ कांश्चन होमान् पूर्णाहुतिं च हुत्वा वैश्वानरेष्टिरनुष्ठीयते ।

वैश्वानरः अग्निदेवतायाः विशिष्टं नाम । विश्वेषु नरेषु जीवेषु वा प्राणिनां देहमाश्रित्य प्राणापानसमायुक्तरूपेण अन्नपाचकत्वेन चैतन्यसम्पादकत्वेन वा सोऽयमग्निः प्रसिद्धः ।

### (१५) दर्वीहोमयज्ञः

दर्वीहोम अग्निहोत्रस्यैव नामान्तरम् । विशेषेण विशिष्टवैशिष्ट्येण समायुक्तश्च । दर्वीनिष्ठव्यापारविशिष्ट- वैशिष्ट्यमालक्ष्य होमेन संयोगात् दर्वीहोम इति संज्ञा निष्पद्यते । अग्निहोत्रे ये खलु व्यापाराः मन्त्राद्युच्चारणपूर्वमनुष्ठीयन्ते सायंप्रातः उदिते अनुदिते च सवितरि ते सर्व एव दर्वीहोमेऽपि । अतः कात्यायनश्रौतसूत्रे दर्वीहोमशब्देन अग्निहोत्रमेव संगृहीतमिति बोद्धव्यम् ।

आचार्याणां दर्वीहोमविषयको मतभेद इह प्रस्तूयते । बोधायनगृह्यसूत्रे दर्वीहोमं प्रकृत्योक्तम् –

“आधारं प्रकृतिं प्राह दर्वीहोमस्य बादरिः ।

अग्निहोत्रं तथात्रेयः काशकृत्स्नस्त्वपूर्वताम् ॥” इति । (१/४/४४)

अनेन वचनेन बादरिमते दर्वीहोमस्य आधारः प्रकृतिः, आत्रेयमते अग्निहोत्रम् । अर्थाद् दर्वीहोमो विकृतिरूपः । काशकृत्स्नस्तु दर्वीहोमस्य अपूर्वतामाह अर्थात् स प्रकृतिर्न विकृतिः । इदमेव साम्प्रतिकानां मीमांसकानां मतम् ।<sup>xxxix</sup>

### (१६) सर्वमेधयज्ञः

सर्वमेधारूपक्रतुरपि सोमयज्ञविशेष एव । चतुस्त्रिंशद्दिनसाध्योऽयं क्रतुः । आहवनीयाग्नौ यज्ञोऽयं कर्तव्यः । आश्वमेधिकः पौरुषमेधिकः सुत्यावत् अनुष्ठानकार्यम् । अत्रापि अजादिभिः पशुभिः यज्ञाः अनुष्ठेयाः । पुरुषमेधवत् सर्वमेधेऽपि मनुष्याणां हिंसा कथमपि न विहिता । सर्वमेधशब्देन सर्वेषाम् एव प्राणिनाम् अजादिपशूनां मनुष्याणाञ्च ग्रहणं भवति । अजादिपशूनाम् आलम्भनादिकर्मणां सिद्धत्वेऽपि मनुष्याणां हिंसनं मारणविशसनादिकं पुरुषमेधे सर्वमेधे च कथमपि सर्वेषु वेदेषु श्रौतसूत्रेषु वेदविदुषां सर्वथा अनभिमतम् ।

### (१७) राजसूययज्ञः

राजसूययज्ञोऽयं राज्ये अभिषिक्तेन क्षत्रियेण अनुष्ठेयः । अत्र राजसूयक्रतौ इष्टिपशुसोमयज्ञानां समप्राधान्यम् । संवत्सरसाध्योऽयं क्रतुः । यज्ञस्यास्य फाल्गुनशुक्लप्रतिपदि आरम्भो भवति । अग्निष्टोमसंस्थाको यज्ञोऽयम् अस्मिन् क्रतौ सहस्रं गावः दक्षिणा भवन्ति । अत्र यज्ञे चरु-पुरोडाश दधिप्रभृतिकं आहुतिद्रव्यं भवति । राजसूययज्ञेन अभिषिक्तः क्षत्रियो भवति राजा । राजानं सूते उत्पादयति इति राजसूयः । उक्तञ्च शतपथब्राह्मणे ‘राजा वै राजसूयेतेष्टा भवति ।’ ‘राजा वै’ निर्दिष्टभूमिखण्डस्य सार्वभौमोऽधिपतिः ।

उपरिवर्णितयज्ञविवरणप्रसङ्गेन अस्माभिः यज्ञतत्त्वपरिचयविषयकग्रन्था केचन पठिताः । ग्रन्थकर्तारो हि प्राचीना अर्वाचीनाश्चेति । ब्राह्मणानि श्रौतसूत्राणिचेति कानिचन यज्ञतत्त्वस्वरूपविज्ञानार्थम् अधीतानि । एतेषां ग्रन्थानां पाठात् उपरिष्ठात् समुपवर्णितं यज्ञतत्त्वसारसंकलनम् । अतो यज्ञविवरणे साक्षात् शब्दतः परम्परया च अधीतग्रन्थानां प्रभावः कथमपि अपवदितुं न शक्यते । अधस्तात् समुल्लिख्यते अनुशीलितग्रन्थसूची ---

- ‘ऐतरेयब्राह्मणम्’; (भागद्वयोपेतम्, सायणाचार्यविरचितभाष्यसमेतम्), सम्पादकः - काशीनाथशास्त्रीआगाशे; प्रकाशकः-आनन्दाश्रमसंस्था, पुणे - ४११००२, १९७७ ख्रीष्टाब्दः ।
- ‘तैत्तिरीयब्राह्मणम्’; (भागत्रयोपेतम्), सायणाचार्यविरचितभाष्यसमेतम्, सम्पादकः - प्रो. पुष्पेन्द्रकुमारः; प्रकाशकः-नागप्रकाशनं, जबाहरनगरं, दिल्ली-१२०००७, १९९८ ख्रीष्टाब्दः ।
- ‘शतपथब्राह्मणम्’; (भागपञ्चात्मकम्), सायणाचार्यविरचितभाष्यसमेतम्, सम्पादकः- बहुभिर्विद्वद्भिर्परिशोधितम् ; प्रकाशकः-नागप्रकाशकःजबाहरनगरं, दिल्ली-११००००७, १९९० ख्रीष्टाब्दः ।
- ‘ताण्ड्यमहाब्राह्मणम्’; (भागद्वयोपेतम्) श्रीआनन्दचन्द्रवेदान्तवागीशेन परिशोधितम्, राष्ट्रियसंस्कृतसंस्थानं, नई दिल्ली, २००३ ख्रीष्टाब्दः ।
- ‘गोपथब्राह्मणम्’; , तारकनाथअधिकारी, वेदविद्याकेन्द्रम्, रवीन्द्रभारती विश्वविद्यालयः, कलिकाता, प्रथमप्रकाशः - १९९९,
- ‘आश्वलायनश्रौतसूत्रम्’; रामनारायणविद्यारत्नसम्पादितम्, एशियाटिकसोसाइटी, कलिकाता- १६, १९८९ ख्रीष्टाब्दः ।
- ‘आपस्तम्बयज्ञपरिभाषासूत्रम्’; सम्पादिका+अध्यापिका ड. इन्द्राणीदत्त, संस्कृतपुस्तकभाण्डार, कलिकाता - ६, १९९३ ख्रीष्टाब्दः ।

- ‘मीमांसाशावरभाष्यम्’; (प्रथमभागः) युधिष्ठिरमीमांसकसम्पादितम्, प्रकाशकः – रामलालकपूरट्रष्ट बहालगढः(हरयाणा) १९८७ ख्रीष्टाब्दः ।
- ‘यज्ञ-कथा’; ग्रन्थकारः – रामेन्द्रसुन्दरत्रिवेदी; प्रकाशकः – प्राचीपाब्लिकेशन, कलिकाता - ७००००१, १४०२ वङ्गाब्दः।
- ‘यज्ञतत्त्वप्रकाशः’; महामहोपाध्यायश्रीचित्रस्वामिशास्त्रिपादैर्विरचितः, सम्पादकः – पं. पी. एन्. पट्टाभिरामशास्त्री, मोतिलालबनारसीदासः, दिल्ली, १९९२ ख्रीष्टाब्दः ।
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- ‘रघुवंशम्’; महाकविकालिदासकृतम्, मल्लिनाथकृतसंज्ञीवनीव्याख्यासहितं, सम्पादकः + प्रकाशकः श्रीजीवानन्दविद्यासागरः, नवमसंस्करणम्, ख्रीष्टाब्दः – १९०२ ।
- ‘वेदेरपरिचयः’; ड. योगीराजवसुविरचितः, फार्मा केएलएम प्राइभेट लिमिटेड, कलि – ९, २००९ ख्रीष्टाब्दः ।

वेदविज्ञानधाराक्रमेण समुद्भूतासु उपनिषत्सु आलोच्यमानासु छान्दोग्योपनिषद् बृहदारण्यकोपनिषद् च ज्येष्ठत्वं श्रेष्ठत्वं च समधिगच्छतः । यज्ञतत्त्वविज्ञानस्य उपासनातत्त्वविद्यायाश्च प्रातिभासिकव्यावहारिकसत्तासत्यामतीत्य पारमार्थिकसत्यस्वरूपभूतब्रह्मावगतौ सहायकरूपेण सुसङ्गतिपूर्वकसमन्वयसाधनेन च परस्परयोग्यसम्बन्धा-विष्करणेन उपनिषद्-युगले आत्मतत्त्वप्रतिपादनं सरलसुगमतया विस्पष्टं प्रतिभाति । अतो छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि चोभयोरेव उत्कर्षकाष्ठा दार्शनिकजगति न केनापि अपलपितुं शक्यते । एतावान् हि तौलनिकविचारस्य परिणामफलमिति विचारणीयम् ।

चेतनाचेतनात्मकविश्वसत्ताया व्यावहारिकपारमार्थिकभावः वेदान्तसिद्धान्ते उपलभ्यते । जगज्जीवयोव्यावहारिकसत्तानिरूपणावसरे नित्य-शुद्ध-बुद्ध-मुक्तस्वभावस्य निर्गुणस्यापि ब्रह्मणः जगज्जन्मादिकारणतः व्यावहारिकसत्तानिरूपकं तटस्थलक्षणं वैयासिकब्रह्मसूत्रे सम्यगुपपादितम् । तथा च पारमर्षसूत्रम् ‘जन्माद्यस्य यतः।’ इति ।<sup>xi</sup> छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च व्यावहारिकजगत्सत्तामङ्गीकृत्यैव ब्रह्मणः पारमार्थिकसत्यविज्ञाने विचारः प्रवर्तते । व्यावहारिकं जगत् जीवाजीवात्मकम् । अज्ञानविजृम्भितमपि व्यावहारिकं जगत् पुरुषार्थकामिनां तथा परमपुरुषार्थभूतमुख्यस्वरूप- निर्गुणब्रह्मजिज्ञासूनामुभयेषामेव आश्रयभूतम् । धर्मार्थकामा गृहस्थजीवानां सममेव सेव्याः । मोक्षार्थिनां यतीनां सन्न्यासिनामपि इह जगति पाञ्चभौतिकशरीरधारिणां प्रारब्धक्षयकारिणां जन्मतः आत्यन्तिकदेहत्यागपर्यन्तं विश्वजगदिदं सत्यतयैव अनुभूयते । जगद्विषयकानुभवः

साक्षाद्ज्ञानेन्द्रियप्रतीतिसाध्यव्यवहारिकदशायामुच्छेत्तुं कदापि न शक्यते । तथापि ब्रह्मसाक्षात्कारात् प्राग्भवीयव्याकृताव्यकृतव्यवहारिकजगत्सत्ता ब्रह्मसाक्षात्कारेण जीवस्य मोक्षार्थिनः परमे ब्रह्मणि लीनतायां तत्समकालमेव एकान्ततोऽत्यन्ततश्चेति विलुप्यते । जीवस्य बद्धदशायामेव व्यावहारिकसत्ता स्वाभाविकी । तदानीं जीवाजीवात्मकं जगद्विचित्रतया शोभते ।

संसारोऽयमतीव विचित्रः । विचित्रेऽस्मिन् संसारे वर्णाश्रमादिविभक्तः समाजः वर्तते । तत्र तदधीशः राजा । सुखदुःखबहुलः मानवसमाजः विचित्रप्राणभृतां जडात्मकविचित्रपदार्थानाञ्च समवायेन भोग्यभोक्तृत्वसम्बन्धेन प्रवहनशीलः । आद्यन्तमस्य को हि विज्ञातुं शक्नुयात् । जगत्यस्मिन् वर्तमानाः जीवाः वैज्ञानिकदृष्ट्या आध्यात्मिकदार्शनिकदृष्ट्या च जगत्तत्त्वं स्वरूपतः आविष्कर्तुमीहन्ते । राष्ट्रनीति-समाजनीति-दण्डनीति-अर्थनीतिप्रमुखनीत्यादिकं मानवसमाजं सञ्चालयति । गिरिसमुद्रारण्य-जनपदवेष्टिता इत्यमस्माकं धरणी । आकाशस्थवायुमार्गैश्च भूमिभागस्य उपरिस्थलं परिवेष्टितम् । पञ्चभूतप्रभावजमृत्तिकाजलतापालोकप्रभृतिभिः मानवजीवनधारा नित्यं प्रचलति । जन्मप्रयाणयोरन्तराले सुखदुःखमयविचित्रभोगसम्पत्तिः सम्भवति जीवानामिह । एतद् विचित्रं चित्रं छान्दोग्योपनिषदि बृहदारण्यकोपनिषदि च वैदान्तिकदार्शनिकदृष्टिः तुच्छत्वेन गृहीत्वा परमार्थभूतब्रह्मविज्ञानसाधनसमकालमेव अभिज्ञतालब्धव्यावहारिकदृष्ट्यालिखितम् ।

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<sup>1</sup>ऐ. ब्रा. -- ४९/७ ।

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## **“PROBLEMS OF MAINTAINING HEALTH AND HYGIENE IN THE SCHOOL”- AN ANALYTICAL STUDY**

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### **INTRODUCTION:**

According to Goutam Buddha “To enjoy good health, to bring true happiness to one’s family, to bring peace to all, one must first discipline and control one’s own mind. If a man can control his mind he can find the way to Enlightenment, all wisdom and virtue will naturally come to him.” Health education plays an important role in the community hygiene. To prevent illness and have positive health attitude, correct and complete knowledge of health is necessary. Health is cleanliness against diseases, whether contagious or self-generated. In this we will discuss the actual meaning of health can be achieved through sanitary habits and healthy way of living. Health is a positive state of well being. Health as define by the World Health Organization (WHO), is “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” If a person is disease free or in a good physical state, but under stress, tension, greed etc. then that person is not considered as a healthy person. Hence, in addition to physical health, we must consider the mental and emotional health also, only then spiritual and social health can be achieved and man can progress forward for the well being of the society. Health is freedom from disease and sickness without, health, we cannot do any work and we cannot improve in life. So, health is the primary need for every one of us. To keep our health well, we should obey the laws of hygiene. Food, exercise, rest and sleep, air and light, punctuality and peace of mind are the primary conditions for good health. We should be punctual in all our daily duties. Labour must be followed by rest. There is an old saying... “Early to bed and early to rise Makes a man healthy, wealthy and wise” Hygiene is defined as the science and art of preserving and improving health. The purpose of hygiene is to allow man to live in healthy relationship with his environment. It deals both with an individual and a community as a whole. In order to be healthy one must realize that hygiene and sanitation play a very important role. National Sample Survey Office (NSSO) conducted a survey in 2012, which has underlined the abysmal state and sanitation in the country, particularly in rural India. According to this survey, only 32% of rural household have their



own toilets and that less than half of India households have a toilet at home. Poor sanitation impairs the health leading to high rates of malnutrition and productivity losses. Indian's sanitation deficit leads to losses worth roughly 6% of its Gross Domestic Product (GPD) according to World Bank estimates by raising the disease burden in the country. Children are affected more than adults as the rampant spread of diseases nutrients there by stunting their growth. This unhygienic environment is due to India's historic neglect of public health services. About 48% of children in India are suffering from some degree of malnutrition. According to the UNICEF, water-borne diseases such as diarrhoea and respiratory infections are the number one cause for child deaths in India. Children weakened by frequent diarrhoea episodes are more vulnerable to malnutrition and opportunistic infections such as pneumonia. With 44% mothers disposing their children's faeces in the open there is a very high risk of microbial contamination (bacteria, viruses, amoeba) of water which causes diarrhoea in children. Also diarrhoea and worm infection are two major health conditions that effect. Schools, not only impart knowledge, but also play a major role in shaping the personality of an individual. What a student learns in school is not just confined to the four walls of a class room, but the whole school environment is a source of knowledge. Apart from knowledge, a student learns cleanliness, good behaviour, and maintains a good hygiene etc. therefore, it is important for a school to maintain a healthy environment atmosphere.

#### **STATEMENT OF THE PROBLEMS:**

The problem of the study is integral part of our life and it's the big concern of our society. Maintaining cleanliness in school premises is a obligation of learners, teachers and the people involve with the institution. We cannot deny the importance of maintaining cleanliness in the school as it is matter about the health of our next generation society builders that is students, health of teacher, health of community and so on. Therefore considering its importance several tips and instructions should be given to students in order to make healthy society and prosperous future.

#### **The schools often suffer from:-**

- Non-existence or insufficient, water supply , sanitation and hand washing facilities ;
- Broken, dirty and unsafe water supply, sanitation and hand washing facilities;
- Toilets or latrines that are not adopted to the needs of children, in particular girls ;

- Children with poor and hand-washing habits and practices;
- Non-existence or irrelevant health and hygiene education;
- Unhealthy and dirty class room and school compound.

The poor health of children affects their ability to learn and there for influences their prospects in life. Basically this means that children with heavy worm infections begin at a disadvantage and have a slower start in the learning process. This children have only a few years of opportunities to benefits formal education.

### **OBJECTIVES OF THE STUDY:**

The main objective of the study was undertaken the following one of the main problem faced by the school children are as follow:

1. To clearly identify problems related to hygiene.
2. To identify waste improved or maintain good hygienic practices.
3. To anticipate the waste of the problem solution based on appropriate and living situation.
4. To identify personal hygiene and sanitation practices and need to improved and maintained them.
5. To recognise the need of others interns of hygiene and sanitation practices.

### **SIGNIFICANCE OF THE STUDY:**

The main and important source of hygiene is cleanliness that is necessary for good health. It is the most important hygiene habit for the good health. Dirt spreads diseases because germs include in it. They move about with the dust in the air, so a dirty man is easily attacked with disease. Hygiene can be defined as the practice of certain habits to maintain a good health. It can be at the personal level and at the community level. Society includes the surrounding we live and other public places. A good environment has a great impact in the physical mental condition of a individual. The untidy and improper way of disposal of waste in public places leads to unhealthy conditions. These lead to uncontrolled growth of rodents and disease causing

and carrying microbes and make us ill. Hence social hygiene is as important as personal hygiene. Maintaining hygiene practice helps to reduce the risks of ill health, but equally important how we and others perceive ourselves and can influence our levels of confidence and self-esteem which can affect many aspects of our lives. School hygiene and sanitation are especially important because children spend a great deal of time at school and they need a healthy environment to learn and grow physically, mentally, sanitary inspection of public institutions is a method for identifying hygiene and sanitation problems. Hygiene is an essential component of healthy living; In fact hygiene is integral to achieving good health and preventing disease and infection.

### **METHODOLOGY OF THE STUDY:**

In this topic Health and Hygiene we have collected the sample surveys were Conduct –

- (i) Health and Hygiene survey in the school.
- (ii) Data collection.

### **HEALTH AND HYGIENE SURVEY IN THE SCHOOL**

The survey was done on November 2018. The school survey was conducted to get the information about the health hygiene condition among the students and their family members, and health care information about both the students and their family and their awareness with respect to the health care facility in their school and villages. Health care providers, health care programs that are carried out in the school to give health care education.

We visit two different schools and collect information. We ask the questions to individuals students –

- It links what students learn with what they do.
- It links what students do in class with what they do at home.

To establish role between personal hygiene and health in everyday life, particularly for students:-

- Design and develop a questionnaire with key question related to personal hygiene like hand washing, bathing, using soap, nail frequency of keeping oneself clean.
- Co-related type of illness with parameter of personal hygiene.

- Create awareness about personal hygiene measures to be taken and the manner in which these are to be adopted.

### **DATA COLLECTION:**

At first we went to the school and we have discussed about our work in details and take the permission to the head master, and then we divided into two groups and enter the different classroom. We have taken 100 sample of questionnaire in our study. We went to class from six to eight to collect the information about their health and hygiene problems. So we find most of the students are good in health but few students are not well because of they do not maintain such type of activity in their daily life and careless about their health. We observe in some school there were no proper toilet, drinking water facility and medical care etc.

**TABLE-1**

### **CLASS VI DATA RESULT**

No.	Question	Positive response	Negative response	Total	Average%
<b>1</b>	Do you brush your teeth?	<b>10</b>	<b>0</b>	<b>10</b>	<b>1000</b>
<b>2</b>	Is keeping your nails clean will help protect you against the spread of harmful bacteria?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>3</b>	Do you take bath every day?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>4</b>	Keeping your clothes clean is it necessary?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>5</b>	Coughing and sneezing can spread bacteria, viruses and parasites. Do to you believe it or not?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>6</b>	Do you have proper drinking water facility?	<b>5</b>	<b>5</b>	<b>10</b>	<b>50</b>
<b>7</b>	Is regularly water tank clean or not?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>8</b>	Is the toilet clean in your school?	<b>6</b>	<b>4</b>	<b>10</b>	<b>60</b>

9	Do you clean your classroom every day?	8	2	10	80
10	Do your kitchen is clean every day?	2	8	10	20
11	Do you wash your vegetables before you cook?	10	0	10	100
12	Do you clean or wash your utensils before and after use?	8	2	10	80
13	Is there any dustbin in your school?	2	8	10	20
14	Do you have separate class for physical education in your school?	0	10	10	0
15	Do you have facilities for primary health care in your school?	8	2	10	80
		T=107	T=43	T=150	

$$\text{Total Average \%} = 107/150 * 100$$

$$= 71.33\%$$

In table no.1, in class VI, it is shown that after analysing the sample we got the average of health conscious among the students. And the negative response we got is 43 in total and positive response we got is 107 from the students. By calculating the average percentage of positive response, we found the result 71.33%

**TABLE: 2**

**CLASS VII DATA RESULT**

No.	Question	Positive response	Negative response	Total	Average%
1	Do you brush your teeth?	8	2	10	80
2	Is keeping your nails clean will help protect you against the spread of harmful bacteria?	7	3	10	70
3	Do you take bath every day?	10	0	10	100
4	Keeping your clothes clean is it necessary?	7	3	10	70

<b>5</b>	Coughing and sneezing can spread bacteria, viruses and parasites. Do to you believe it or not?	<b>6</b>	<b>4</b>	<b>10</b>	<b>60</b>
<b>6</b>	Do you have proper drinking water facility?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>7</b>	Is regularly water tank clean or not?	<b>3</b>	<b>7</b>	<b>10</b>	<b>30</b>
<b>8</b>	Is the toilet clean in your school?	<b>2</b>	<b>8</b>	<b>10</b>	<b>20</b>
<b>9</b>	Do you clean your classroom every day?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>10</b>	Do your kitchen is clean every day?	<b>7</b>	<b>3</b>	<b>10</b>	<b>70</b>
<b>11</b>	Do you wash your vegetables before you cook?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>12</b>	Do you clean or wash your utensils before and after use?	<b>4</b>	<b>1</b>	<b>10</b>	<b>90</b>
<b>13</b>	Is there any dustbin in your school?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>14</b>	Do you have separate class for physical education in your school?	<b>1</b>	<b>9</b>	<b>10</b>	<b>10</b>
<b>15</b>	Do you have facilities for primary health care in your school?	<b>6</b>	<b>4</b>	<b>10</b>	<b>60</b>
		<b>T=100</b>	<b>T=50</b>	<b>T=150</b>	

Total Average%=  $100/150 \times 100$

=66.67%

In table no.2, we repeated the same questionnaire as to that of class VI and we got the positive response that is 100 in total and negative response 50. The result we got from calculating the positive response is 66.67

**TABLE: 3****CLASS VIII DATA RESULT**

No.	Question	Positive response	Negative response	Total	Average%
<b>1</b>	Do you brush your teeth?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>2</b>	Is keeping your nails clean will help protect you against the spread of harmful bacteria?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>3</b>	Do you take bath every day?	<b>9</b>	<b>1</b>	<b>10</b>	<b>90</b>
<b>4</b>	Keeping your clothes clean is it necessary?	<b>7</b>	<b>3</b>	<b>10</b>	<b>70</b>
<b>5</b>	Coughing and sneezing can spread bacteria, viruses and parasites. Do to you believe it or not?	<b>9</b>	<b>1</b>	<b>10</b>	<b>90</b>
<b>6</b>	Do you have proper drinking water facility?	<b>7</b>	<b>3</b>	<b>10</b>	<b>70</b>
<b>7</b>	Is regularly water tank clean or not?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>8</b>	Is the toilet clean in your school?	<b>9</b>	<b>1</b>	<b>10</b>	<b>90</b>
<b>9</b>	Do you clean your classroom every day?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>
<b>10</b>	Do your kitchen is clean every day?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>11</b>	Do you wash your vegetables before you cook?	<b>10</b>	<b>0</b>	<b>10</b>	<b>100</b>
<b>12</b>	Do you clean or wash your utensils before and after use?	<b>9</b>	<b>1</b>	<b>10</b>	<b>90</b>
<b>13</b>	Is there any dustbin in your school?	<b>8</b>	<b>2</b>	<b>10</b>	<b>80</b>



Total	14	Do you have separate class for physical education in your school?	7	3	10	70
	15	Do you have facilities for primary health care in your school?	9	1	10	90
			T=126	T=24	T=15 0	

$$\text{Average \%} = 126/150 \times 100$$

$$= 84\%$$

In table no.3, in class VIII, the same questionnaire was repeated in the class and the positive response we got is 126 and the negative response is 24. The result we got by calculating the positive response is 84%.

**TABLE-4**

NO	CLASS	AVERAGE %
1	VI	71.33
2	VII	66.67
3	VIII	84

In table no.4 , the overall table, it shows that the highest percentage of health conscious is 84% which is in class VIII and the lowest percentage we got in class VII that is 66.67

### **FINDING OF THE STUDY**

This study was under taken to find out the knowledge and practice of the hygiene among the school students and also about the availability of sources related to health and hygiene in the school. The problem of maintaining health and hygiene in the family and school, the findings:-

- It was found that most of the students are knowledgeable about personal health and hygiene except few students.
- Around 100 samples, majority of the students have faculty of drinking water and only few students do not have drinking water facility.
- There are no separate toilets for boys and girls.
- The toilets are not clean every day.

- The toilets are made of pucca in the school.
- Students are aware about washing their hands before eating and after toilet.
- Students are also aware about washing their dishes or utensils before use and after use.
- They are aware of maintaining cleanliness both in the school and in the school.
- Water quality of the drinking water is not up to the mark.
- The water tanks are not clean regularly.
- There is a proper place available in the school for students to take midday-meal.
- The type of quality used for cooking is a good quality of ingredients in the school.
- The mid-day-meal menus are sufficient to the student provided by the school.
- The kitchen of the school is clean every day.
- Dustbin is there in every classroom in the school.
- There is a proper place for throwing the garbage in the school.
- In spite of having regular class, the schools provide separate class for physical education.
- There are facilities for primary health care in the school.
- The dining rooms are clean every day.
- Students are aware of covering their mouth with their hands while coughing.

## **CONCLUSION**

As the analysis in this report have demonstrated, a wide array of factors influences a family's health, and many entities in the community share responsibility for maintaining and improving its health and hygiene. Responsibility shared among many entities can easily become responsibility ignored or abandoned. Implementing and sustaining school-based healthy eating and physical activity policies and programs will make a powerful contribution toward a healthy future for students in the school and family.

Contributing to the interest in health improvement and performance monitoring is a wider recognition that health embraces well-being as well as the absence of illness. For both the students and the families, health can be seen to depend not only on medical care but also on other factors including individual behaviour, physical activity and genetic makeup and social and economic conditions.

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## **Child Care Leave (CCL): A matter of re-thinking**

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**Abstract:** Every society promotes and functions for welfare of its citizens. But sometimes it appears, a particular segment of the society used to deprive socially, politically and economically in comparison to privileged sections. Keeping this discriminatory scenario, every state wants to ensure full freedom to its all citizens; so everyone can avail their rights properly. To eradicate this kind of uneven situation, every state especially in a democratic state like India always pledge for ensuring freedom and rights. Inspite of all efforts, the central or state government sometimes failed to fulfill the requirements of its people. Hence, government tries to make equilibrium in the society through introduction of various welfare schemes for the weaker sections of the society. The present paper intends to explore one welfare scheme introduced by the state government of Tripura that is called CCL (Child Care Leave) especially for women employees working under state government and its various aspects.

**Keywords:** welfare schemes, freedom, rights, CCL, Tripura

### **Introduction:**

The welfare schemes introduced by any government aimed at meet the necessities and demands of its people. The government tries to work for the betterment of the people; especially works for so called weaker sections of the society. Keeping this aim in view, every government takes positive steps. According to article 14 of Indian constitution, it is clearly mentioned that all are equal in the society. All the people must enjoy and exercise their rights equally to maintain equality in the society and follow the instructions of Indian constitution. The central government along with state governments working through welfare schemes for betterment of people.

It is a matter of thinking that since time immemorial; women of Indian society have been depriving many ways. For proper emancipation of women, numbers of initiatives were taken by the government for bringing them into the main stream of the society. CCL is one among

them and somehow it may achieve its goals and destiny. It is also to be mentioned here that after introducing of CCL scheme in Tripura, many questions, discussions and debates have been on its way. So it is the time to look into the matter and emphasis on its merits and demerits. As a result of that some remedies may come out for maintaining equilibrium in the society.

**An overview of CCL:** The Supreme Court of India in the year 2014, taken a decision on women employee working under central government. The apex court stated that a woman employee working under central government take an uninterrupted leave for 2 years for child care. Moreover the reasons for examination and sickness are also inclusive for the leave purpose. Unfortunately the officials of Tripura state spoils several times to carry forward the initiative that has taken by the Supreme Court. After near about three years, state government of Tripura has taken the decision on it. The decision has come up on 12<sup>th</sup> December 2017, Tuesday in a cabinet meeting at the secretariat office.

The main aim of this scheme was to facilitate the in-service females working in the state. They can avail the benefits of this scheme for proper nourishment of the children. Moreover, this scheme is essential and will mark its contribution in the progress of the state. In addition to that, it is to be narrated that according to 13<sup>th</sup> amendment of 'Tripura Civil Service Leave Rules 1986', the government of Tripura has been brought a new provision in the state leave rules.

**Provisions related to CCL:** As per new provision brought into 'Tripura Civil Service Leave Rules 1986', it is mentioned that an woman employee shall get 730 days paid leave during her service period for child care and other related issues besides her normal leave. It is also added in the provision that a woman government employee having minor children below 18 years can avail CCL for maximum period of 730 days during the entire service period for taking care of upto two children.

**Features of CCL:** The important features and highlighted part of CCL scheme are as follows:

- The Council of Ministers approves this Child Care Leave (CCL) scheme.
- Subsequently, all the female employees having children below the age of 18 years can get leave for maximum 730 days in their entire service life.
- The state government is not going to deduct the salary but the initial condition is that the employee must be working under state government.
- In addition to this, employees must work in the state of Tripura. Moreover the female employees can avail this service only once.

- Accordingly this scheme is necessary keeping in view the better nourishment of the children.
- Children in this growing stage of life seek attention of the parents especially of the mother.
- Henceforth, government is starting this scheme for all the female employees serving in the state.

On September 2, 2019 the government of Tripura Amended the 'Tripura Civil Service Leave Rules 1986 and modified the same by incorporating new entity to it. It explain that the woman Government servant having disabled/ mentally challenged child may be granted Child Care Leave for a maximum period of two years(i.e. 730 days) up to the age of 22 years of such category of child for taking care of up to two children subject to conditions (ii) to (viii) of Rule 39© of the Principal Rules. Documents relating to the disability as well as a declaration of the concerned Government servant regarding dependency of the child shall have to be submitted to the competent authority.

#### **Points to be taken care of:**

It is always a debatable question comes to the mind of many that how come and how much a society will take the advantage or society will develop and run if a particular and important segment of the society will deprive? It is true in reference to CCL; if it is only for female employees then the notion of equality may be truncated. As we know any society can develop and will be in full swing only when equality persists. That means irrespective of caste, creed, sex, religion and importantly gender, discrimination must be abolished. There are some points that raised and brought to light after implementation of CCL in Tripura. These are as follows:-

**Patriarchal Outlook:** According to this point it indicates that a child can grow up properly in a favourable family environment and that family does not constituted only by female persons. Child needs affection, healthy family environment, morally equipped condition and that can be fulfilled by family that has two important pillar mother and father. Many male employees raised their question in that context that CCL and its provisions denied the role of a father in the family and role in caring his child. So it should be modified.

**It's a matter of parents, not only mothers:** It is mentioned earlier that parents are the two pillar of a family. So for caring, motivating, inspiring, building up career, knowledge of responsibility, punctuality, sincerity, morality, a child needs parental jurisdiction. Child not only remain depends upon his/her mother, but in some cases they mostly depend upon their father. Although dependency does not mean special treatment should be given to that particular gender. It means both father and mother is important in the process of caring of a child life. So father should have enjoyed CCL.

**Spending time with child has psychological impact:** Few people also argued that mothers' caring for her child is most important but it does not indicate fathers' caring attitudes are less important. So it is essential for every father to spend some quality time with their kids. As a result of that both father and child will be benefitted. So it can be mentioned that for psychological reason and mental stability or satisfaction, father also should have some time for looking after his child; and that can be possible through CCL.

**Better nourishment means parent nourishment:** it is mentioned in the feature of CCL that for better nourishment, CCL is very much needed for women employee. But it is a fact that child nourishment can be fulfilled by both father and mother. Child requires father attachment too. It is quite misleading to think that better nourishment of child means mothers' nourishment.

**Fathers' attention is necessary ingredient:** It is also acknowledged that at growing stage of child needs attention of the parents. It means fathers' can also play very important and significant role in shaping the life of child. Fathers' also need some comfort zone and time to show their attention towards their kids and these only can possible if CCL is applicable to them along with female employee.

**Conclusion:** From the above study and discussion it can be assumed that for proper shaping of child life not only mother, father also can put an impact on them. In order to nourishment of child perfectly, it is necessary for looking into the matter of CCL for male employee. As a result of that6 fathers' can give time to their kids, kids can fill better, think better and can build up a feeling of unity and togetherness in a family. Child can find out time to enjoy with his/her parents. Naturally family bonding will established, society will be united, rights will equally be distributed and ultimately the notion of inequality will be curtailed.

**Reference:**

1. Government of Tripura, Finance Department, 12<sup>th</sup> December 2017
2. Government of Tripura, 2<sup>nd</sup> September, 2019

## ছোটগল্পকার সুবিমল রায় ও তাঁর গল্প সংকলন ‘ভাঙা সাঁকো’ : একটি অধ্যয়ন।

মনমোহন দেবনাথ

ত্রিপুরা ভারতবর্ষের উত্তর পূর্বাঞ্চলের একটি ক্ষুদ্র রাজ্য হলেও এখানকার শিল্প-সংস্কৃতি চর্চা ও সাহিত্য রচনার ধারা বৃহত্তর বঙ্গসাহিত্যের সঙ্গে সমান তালে বয়ে চলেছে তার আপন স্বাতন্ত্র্য বজায় রেখে। জাতি উপজাতি মানুষের মিলনক্ষেত্র ত্রিপুরার জল মাটি হাওয়ায় লালিত মানুষের বিচিত্র জীবন চিত্র, তাদের সামাজিক, অর্থনৈতিক ও রাজনৈতিক প্রেক্ষাপট, নর নারীর প্রেম-ভালোবাসা ও মনস্তাত্ত্বিক টানাপোড়েন, তাদের কৃষ্টি-সংস্কৃতি ও আজীবন লালিত সংস্কার বিশ্বাস ইত্যাদি বিভিন্ন দিক সাহিত্য সৃষ্টিতে উঠে এসেছে। পাশাপাশি সাতচল্লিশের দেশভাগ ও পরবর্তীকালে একাত্তরের মুক্তিযুদ্ধের ফলে ত্রিপুরায় আশ্রয় নেওয়া হাজার হাজার ছিন্নমূল মানুষের জীবন যন্ত্রণা ও শেকড় পৌতার কাহিনিও স্থান পেয়েছে এখানকার সাহিত্যে। ত্রিপুরায় সাহিত্যক্ষেত্রে বিশেষ করে ছোটগল্প রচনায় যাঁরা অভাবনীয় কৃতিত্বের পরিচয় দিয়েছেন তাঁদের মধ্যে উল্লেখযোগ্য হলেন বিমল চৌধুরী, সুখময় ঘোষ, সুবিমল রায়, ভীষ্মদেব ভট্টাচার্য, কালিপদ চক্রবর্তী, বিমল সিংহ, কল্যাণব্রত চক্রবর্তী, হরিভূষণ পাল, মীনাক্ষী সেন প্রমুখ।

উপরে উল্লেখিত গল্পকারদের মধ্যে সুবিমল রায়কে একজন প্রতিনিধি স্থানীয় গল্পকার বলা যায়। তাঁর এপর্যন্ত প্রকাশিত গল্পগ্রন্থ ৯টি। এগুলি হল-

- ১) ‘বিবর্ণ আবির্’ (১৯৭২)
- ২) ‘মানচিত্র ও অন্যান্য গল্প’ (১৯৮৯)
- ৩) ‘আত্মজ’ (১৯৯৮)
- ৪) ‘যাত্রী’ (২০০৩)
- ৫) ‘জীবনতৃষা’ (২০০৯)
- ৬) ‘দিনের শেষে’ (২০১৪)
- ৭) ‘জবানবন্দী’ (২০১৬)
- ৮) ‘গল্পসম্প্রদায়’ (২০১৮)
- ৯) ‘ভাঙা সাঁকো’ (২০১৯)



তাছাড়াও ত্রিপুরার বিভিন্ন গল্প সংকলনে তাঁর অনেক গল্প স্থান পেয়েছে। ত্রিপুরার বিভিন্ন সংবাদ পত্রের শারদীয় সংখ্যায় এবং বিভিন্ন ক্লাবের পূজা সংখ্যায়ও তাঁর অনেক গল্প প্রকাশিত হয়েছে এবং পরবর্তীকালে একত্রে সংকলিত হয়ে গল্প সংকলন হিসেবে আত্মপ্রকাশ করেছে। তাঁর গল্পগুলি বিচিত্র স্বাদের এবং বিচিত্র চেতনার পরিচায়ক, যেগুলি পড়তে পড়তে আমরা পৌঁছে যাই এক অনাবিস্কৃত উপলব্ধির জগতে। ড. নির্মল দাশ ও রমাপ্রসাদ দত্ত সম্পাদিত ‘শতাব্দীর ত্রিপুরা’ গ্রন্থে অধ্যাপিকা মঞ্জুরী চৌধুরী তাঁর ‘ত্রিপুরার বাংলা ছোটগল্প’ শীর্ষক প্রবন্ধে সুবিমল রায়ের গল্প সম্পর্কে আলোচনা করতে গিয়ে লিখেছেন- “সুবিমল রায়ের গল্পের জগতের একটা বড়ো অংশ জুড়ে রয়েছে সমকালীন সমাজ মানুষের দ্বিধা-যন্ত্রণা প্রত্যাশা ও অপ্রাপ্তির বেদনা। আবার প্রেম ও প্রয়োজন নারী পুরুষের সম্পর্কে যে টানাপোড়েন সৃষ্টি করে তার পরিচয়ও রয়েছে বেশ কিছু গল্পে। মধ্যবিত্ত, নিম্ন-মধ্যবিত্ত শ্রেণির মানুষেরাই তাঁর গল্পের পাত্রপাত্রী। শ্রেণিবিভক্ত এই সমাজ-শক্তির মাপকাঠিতে যারা দুর্বল, লেখকের সহানুভূতি তারা সহজেই পেয়েছে।” (‘শতাব্দীর ত্রিপুরা’, অক্ষর পাবলিকেশন, আগরতলা, ২০১৬, ২য় সংস্করণ, পৃ. ২৪১)

আসলে সুবিমল রায়ের গল্পগুলি নিবিড়ভাবে পাঠ করলে আমরা উপলব্ধি করতে পারি যে, তাঁর তীব্র সমাজ সচেতনতা ও তীক্ষ্ণ অনুসন্ধানী দৃষ্টি নিয়ে সমাজের প্রতিটি দিককে এবং প্রতিটি মানুষের জীবন যন্ত্রণা, সম্পর্কের টানাপোড়েন ও জীবন দৃষ্টিকে গভীর সহানুভূতির সঙ্গে তুলে ধরেছেন তাঁর বিভিন্ন গল্পে। ড. শিশির কুমার সিংহ তাঁর সম্পর্কে বলেছেন- “সুবিমল রায় একজন সমাজ সচেতন লেখক। তাঁর গল্পে সামাজিক ও অর্থনৈতিক সমস্যার কথা যেমন আছে তেমনি আছে নর-নারীর জটিল সম্পর্কের কথাও। তাঁর গল্পে যেমন মধ্যবিত্ত শ্রেণির কথা রয়েছে তেমনি রয়েছে নিম্ন-মধ্যবিত্তদের জীবন যন্ত্রণার কথাও।” (ত্রিপুরার বাংলা সাহিত্যের সম্পূর্ণ ইতিহাস, অক্ষর পাবলিকেশন, আগরতলা, ২০১৮, পৃ. ৩৭৫)

সুবিমল রায়ের বিভিন্ন গল্পগ্রন্থে প্রকাশিত গল্পগুলোর মধ্যে উল্লেখযোগ্য গল্প হল- ‘বিবর্ণ আবির্ভাব’, ‘মানচিত্র’ ‘ঈশ্বরের নবজন্ম’, ‘জীবনবৃত্ত’, ‘আঁধার পেরিয়ে’, ‘মরাগাঙ’, ‘সমতা’, ‘বিচার’, ‘আত্মজ’, ‘যাত্রী’, ‘পিয়রী সেতু’, ‘বিপন্ন ঈশ্বর’, ‘জীবনতৃষা’, ‘দিনের শেষে’,

‘জন্মভূমি’, ‘জবানবন্দি’ ইত্যাদি । বর্তমান অভিসন্দর্ভে সুবিমল রায়ের সদ্য প্রকাশিত (বইমেলা, ২০১৯) গল্পগ্রন্থ ‘ভাঙা সাঁকো’তে সংকলিত গল্পগুলি সম্পর্কে বিশেষ আলোকপাত করার চেষ্টা করবো । তবে এই সূত্রে তাঁর উল্লেখযোগ্য গল্পগুলির একটি সংক্ষিপ্ত পরিচয় তুলে ধরছি ।

তাঁর ‘ঈশ্বরের নবজন্ম’ গল্পটি একটি জটিল মনস্তাত্ত্বিক গল্প। গল্পের প্রধান চরিত্র অজয় তার প্রেমিকা স্বাতীর কাছ থেকে প্রত্যাখ্যাত হয়ে ঈশ্বরের কাছে বিচার প্রার্থনা করেছিল । কিন্তু স্বাতী অন্যত্র বিয়ে করে সুখে সংসার যাপন করায় সে ঈশ্বরের উপর বিশ্বাস হারিয়ে নিজেই প্রতিশোধ নিতে গিয়ে স্বাস্থ্য , শিক্ষা, অর্থ ও প্রতিষ্ঠার বলে স্বেচ্ছাচারী হয়ে ওঠে । একদিন সে জানতে পারে স্বাতী বিধবা হয়েছে এবং এই সংবাদে সে খুশিই হয়েছে । পাশাপাশি সে নিজের কৃতকর্মের ফলভোগের আশঙ্কায় বিমূঢ় হয়েছে, কারণ সে উপলব্ধি করেছে ঈশ্বর দেরিতে হলেও সবকিছুর বিচার করেন । ফলে সে এক তীব্র মনস্তাত্ত্বিক দ্বন্দ্ব ক্রতবিক্ষত হয়েছে । ‘সমতা’ গল্পটিতে একদিকে রয়েছে দেশভাগের ফলে উদ্বাস্তু মানুষের জীবনযন্ত্রণার কথা আর অন্যদিকে রয়েছে সংরক্ষণ নিয়ে উচ্চবর্ণের মানুষের হতাশা ও জটিল মানসিকতার পরিচয় । গল্পের প্রধান চরিত্র সুদীপের মা-বাবা বাংলাদেশ থেকে এসে আগরতলায় কোনো রকমে মাথা গৌজার ব্যবস্থা করেন । তার মা বাড়ি বাড়ি ঠিকে বিয়ের কাজ করে অনেক কষ্টে তাকে লেখাপড়া করিয়েছেন । সে দেখেছে তার সহপাঠী বন্ধু বরুণ এস. সি. হওয়ায় তার থেকে কম নম্বর পেয়েও ইংরেজিতে অনার্স পেয়েছে । আবার চাকরির ক্ষেত্রেও তার মতো উচ্চ বর্ণের জন্য পোষ্ট খালি নেই, ফলে সে ভেবেছে তার চক্রবর্তী টাইটেলটাই তার সর্বনাশের মূলে । তাই সে চক্রবর্তী উপাধি গোপন করে টাকা দিয়ে এস. সি. সার্টিফিকেট সংগ্রহ করতে চেয়েছে। প্রয়োজনে সে মুচির দোকানে কাজ করতেও চেয়েছে । অস্বীকার করার উপায় নেই, শুধু সুদীপই নয়, আজকের যুবসমাজের একটা বড় অংশই এই মানসিকতার শিকার ।

‘জীবনবৃত্ত’ গল্পে এক অসহায় যুবকের বিশ্বরেকর্ড গড়া ও পুরস্কারের লোভে জীবন বাজি রেখে সাইকেল চালিয়ে যাওয়া এবং অপরদিকে আরেক অসহায় ছেলের এই প্রতিযোগিতায় আগত দর্শকদের কাছে চানচুর বিক্রির ইচ্ছা পাঠক হৃদয়কে তীব্রভাবে নাড়া দেয় । ‘আঁধার পেরিয়ে’

গল্পে শ্মশানে আনা মৃত্যুর শাড়ি নিয়ে ঝগড়া, কাড়াকাড়ি ও একটি বালিকার শাড়িটি পাওয়ার তীব্র আকুতি এবং শেষপর্যন্ত মৃত্যুর স্বামীর হস্তক্ষেপে ঝগড়ার অবসান হয়। কিন্তু তিনি তাঁর মৃত পত্নির সেই শখের ধনেখালি শাড়িটি শেষপর্যন্ত ঐ বালিকার হাতেই তুলে দিয়ে বলেছেন-‘পরিস। যত্ন করে রাখিস’। আরও কিছু বলতে চাইলেও পারেন নি, কারণ ব্যথায় তার কণ্ঠ রোধ হয়ে আসছিল, আমরা পাঠক হিসেবে তার এই ব্যথা উপলব্ধি করতে পারি, সমস্ত আঁধার পেরিয়ে আমাদের কাছে সবকিছু আলোয় উদ্ভাসিত হয়ে ওঠে। ‘মরাগাঙ’ গল্পে সুবিমল রায়ের অনুসন্ধানী চোখ এক স্কুল শিক্ষিকা সুতপা দেবীর আত্মকেন্দ্রিক স্বার্থান্বেষী মানসিকতাকে তুলে এনেছে, যিনি তার অধ্যাপক স্বামীকেও সময়ের সঙ্গে তাল মিলিয়ে এবং অবস্থা বুঝে চলার পরামর্শ দিয়েছেন। অপরদিকে তাদের কাজের মেয়ে বাংলাদেশ থেকে আগত অসহায় বিধবা মিনতি তার ছেলে কবীরকে স্কুলে ভর্তির জন্য একটা এদেশের স্কুল সার্টিফিকেট সংগ্রহের ব্যর্থ চেষ্টা ধরা পড়েছে, পাশাপাশি আশির দাঙ্গার প্রেক্ষাপটও এসেছে। মিনতির কথায় ‘আমাগো কোনো দেশ নাই। এখানকার বাঙালিরও কোনো দেশ নাই।’ (‘দেশভাগের গল্প : ত্রিপুরা’, বিমল চক্রবর্তী, গাঙচিল, পৃ.৪৯)। ফলে গল্পটি বহুমুখী আবেদনে সমৃদ্ধ।

সুবিমল রায়ের ছোটগল্পগুলির মধ্যে একটি অন্যতম শ্রেষ্ঠ গল্প ‘বিচার’। বিচারের বাণী যে অনেক সময় নীরবে নিভুতে কাঁদে তা এ গল্পটি পড়লে সহজেই উপলব্ধি করা যায়। ধীরাজবাবু ও শিবানী দেবীর একমাত্র মেয়ে শিশুর বাড়ির নরক যন্ত্রণা ভোগ করে মৃত্যুর কোলে ঢলে পড়লেও আদালতে পাঁচ বছরে মামলার কোনো কূলকিনারা হয়নি। মামলার খরচ মেটাতে গিয়ে সর্বস্ব খুঁইয়ে একসময় হতাশাগ্রস্ত হয়ে ধীরাজবাবুর মৃত্যু হয়। ফলে অসহায় শিবানী দেবী নিজেই আদালতে চিঠি লিখে মামলা প্রত্যাহার করেন। প্রভাব প্রতিপত্তির কাছে মানুষ কতটা অসহায় আত্মসমর্পণ করে, তার প্রমাণ এই গল্পটি। অপরদিকে সমাজের সুবিধাবাদী সুযোগসন্ধানী মানুষের ভিড়ে সত্য কিভাবে হারিয়ে যায় সেটাকে দেখিয়েছেন ‘যাত্রী’ গল্পে। প্রতিবাদী ও সত্যবাদী কণ্ঠকে থামিয়ে দেবার মতো মানুষের অভাব নেই কোনো কালেই। ফলে তাকে নিজের জেদেই একাকী চলতে হয়। ‘যাত্রী’ গল্পের সেই সত্যবাদী সাহসী ছেলেটি তার অকুতোভয় সরল স্বীকারোক্তি



দিয়ে ড্রাইভারের গাড়ির কালো ধোঁয়ায় ঢাকা পড়লেও সহজেই পাঠকের সহানুভূতি আদায় করে নেয় ।

তার আরেকটি বিশিষ্ট গল্প ‘পিয়রী সেতু’ ত্রিপুরার জাতি-উপজাতির মিলনসেতু হিসেবে উপস্থাপিত হয়েছে । এই গল্পে পিয়রী সেতু শুধু দুই পারের মানুষের জীবন যাত্রাকে সহজ করেনি, তাদের হৃদয়কেও যেন যুক্ত করে দিয়েছে । কিন্তু অস্থির সময় সে হৃদয় সম্পর্কের প্রতীককে টিকে থাকতে দেয়নি, এক ভয়ঙ্কর বিস্ফোরণে ধ্বংস করে দেয় । পাহাড় সমতলের মানুষের মিলনের মাঝখানে বাঁধা হয়ে দাঁড়ায় বিষু ছাড়ার দুরন্ত স্রোত । গল্পটি আশির ভয়ঙ্কর দাঙ্গার প্রেক্ষাপটকেই যেন তুলে ধরে । ‘দিনের শেষে’ গল্পগ্রন্থের নাম গল্পটিও সুবিমল রায়ের আরেক অনুপম শিল্প সৃষ্টি । গল্পটির প্রধান চরিত্র সুদীপ্তর জীবনের শেষ প্রান্তে এসে যখন তার জীবনী শক্তি ক্রমশঃ ম্লিয়মান, তখন এক বিধবা মধ্যবয়স্কা মনোরমার সান্নিধ্যে এসে ঝুঁজে পেয়েছে বেঁচে থাকার প্রেরণা, ঝুঁজে নিতে চেয়েছে শেষ জীবনের আশ্রয় । স্ত্রী ও মেয়ের কাছ থেকে প্রত্যাখ্যাত হয়ে সুদীপ্তর মনের ঘরে যে তীব্র ভাঙন শুরু হয়েছিল তা রোধ করার সাহস ও প্রেরণা যুগিয়েছে মনোরমা । মনোরমারও নিঃসঙ্গ বৈধব্য জীবনে এক আশার আলো জাগিয়ে তুলেছে সুদীপ্ত । ‘দিনের শেষে’ নামটি এখানে সার্থক অর্থেই ব্যবহার করেছেন লেখক । উভয়েই জীবনের শেষ প্রান্তে এসে একে অপরকে আশ্রয় করে বাঁচতে চেয়েছে, একে অপরের অবলম্বন হয়ে উঠতে চেয়েছে এবং শেষ পর্যন্ত উভয়েই উভয়ের মনের ঘরে স্থায়ী আসন পেতে বসেছে।

‘ভাঙা সাঁকো’ গল্পগ্রন্থে মোট চৌদ্দটি গল্প স্থান পেয়েছে যেগুলি আগে ত্রিপুরার বিভিন্ন সংবাদপত্র ও বিভিন্ন ক্লাবের শারদ সংখ্যায় প্রকাশিত হয়েছে । এই গ্রন্থের প্রথম গল্প ‘অতসী’ বহুস্রবিক ও বহুমুখী আবেদন নিয়ে আমাদের মনোজগতে সাড়া জাগায় । গল্পটিতে কলেজ জীবনের দুই বন্ধুর কলেজ ছাড়ার পর সুদীর্ঘ পঞ্চাশ বছর পরেও টেলিফোনের মাধ্যমে তাদের বন্ধুত্ব টিকে থাকা এবং শেষ জীবনে তাদের মুখোমুখি সাক্ষাতের পরিচয় রয়েছে । এই সাক্ষাতের সৌজন্যেই উঠে এসেছে ত্রিপুরার সাম্প্রতিককালের একটি জ্বলন্ত সমস্যা তিপাল্যান্ডের দাবি নিয়ে মিছিল, আন্দোলন । গল্পকথক ও তার বন্ধু সুনির্মলের কথোপকথনের মধ্য দিয়ে এই বিষয়টিকে তুলে ধরা হয়েছে এবং প্রসঙ্গক্রমে এসেছে দেশভাগের পূর্বে মুসলিম লীগের পাকিস্তানের দাবি নিয়ে

মিছিল ও পাকিস্তান আদায়ের প্রসঙ্গ, ত্রিপুরার আশির দাঙ্গার প্রসঙ্গ। সুনির্মল জানতে চেয়েছে মুসলিম লীগ তো পাকিস্তান আদায় করেছিল, এখানে কি হবে? উত্তরে কথক বলেছেন যে, এখানে কিছুই হবে না, ত্রিপুরা ত্রিপুরাতেই থাকবে, কারণ রাজ্যটা ভাগ হোক, অধিকাংশ মানুষ তা চায় না। সবাই চায় মিলে মিশে থাকতে, কেননা আশির বেদনাদায়ক স্মৃতি ত্রিপুরাবাসীর মন থেকে আজও মুছে যায়নি। এপ্রসঙ্গে সুনির্মলের কথাতেই উঠে এসেছে জাতি উপজাতির মধুর সম্পর্কের কথা। চাকুরি জীবনের শুরুতে সে নিজে সেই উষ্ণতা অনুভব করেছে এক আদিবাসী এলাকায় ট্রাইবেল সুপারভাইজারের দায়িত্ব পালন করতে গিয়ে।

সুনির্মলের প্রথম চাকুরির বিবরণ সূত্রেই এসেছে অতসীর প্রসঙ্গ যা এই গল্পের মূল কেন্দ্রবিন্দু। এই অংশের সঙ্গে রবীন্দ্রনাথের ‘পোস্টমাস্টার’ গল্পের মিল রয়েছে। এ গল্পের সুনির্মল হল রবীন্দ্রনাথের পোস্টমাস্টার আর অতসী হল রতন। পোস্টমাস্টার যেমন শহর থেকে দূরে অজ পাড়াগাঁয়ে চাকুরি করতে গিয়ে অনাথা বালিকা রতনের সংস্পর্শে এসেছে, তেমনি সুনির্মলও আগরতলা থেকে দক্ষিণ ত্রিপুরার এক পাহাড়ি গ্রাম ময়ূরছড়ায় ট্রাইবেল সুপারভাইজারের চাকুরি করতে গিয়ে পিতৃমাতৃহীন অতসীর সংস্পর্শে এসেছে। তার কাজের অবসরে একাকী নির্জন জীবনে অতসী তাকে সঙ্গ দিয়েছে। উভয় গল্পের কাহিনির মিলের পাশাপাশি সংলাপের ক্ষেত্রেও মিল রয়েছে। যেমন পোস্টমাস্টার রতনকে বলেছিল-‘তোকে আমি একটু একটু করে পড়তে শেখাব।’ (‘গল্পসংকলন’, রবীন্দ্রনাথ ঠাকুর, বিশ্বভারতী, পৃ. ৪) এখানে সুনির্মল অতসীকে বলেছে- ‘তোকে আমি বাংলা এবং অঙ্ক শেখাব কাল থেকে।’ (‘ভাঙা সাঁকো’, সুবিমল রায়, তুলসী পাবলিশিং হাউস, পৃ. ১৪) রতন যেমন অসুস্থ পোস্টমাস্টারকে সেবা শুশ্রূষায় সুস্থ করে তুলেছে, তেমনি অতসীও অসুস্থ সুনির্মলকে সেবা শুশ্রূষায় সুস্থ করে তুলেছে। গল্পের অন্তিম অংশে পোস্টমাস্টার চাকুরি ছেড়ে বাড়ি যাওয়ার সময় রতন জানতে চেয়েছিল ‘দাদাবাবু আমাকে তোমাদের বাড়ি নিয়ে যাবে?’ (পৃ. ৯) ঠিক তেমনি সুনির্মলও চাকুরিতে বদলি নিয়ে বাড়ি যাওয়ার সময় অতসী জানতে চেয়েছিল, ‘আমাকে তোমার সঙ্গে নিয়ে যাবে না?’ (পৃ. ১৭) উত্তরে পোস্টমাস্টার

বলেছিল ‘সে কী করে হবে ?’ (পৃ. 9) আর সুনির্মল বলেছে ‘এটা হয় না রে অতসী । তুই এখানেই থাকবি ।’ (পৃ. 17 )

উভয় গল্পের মধ্যে পার্থক্য শুধু পোস্টমাস্টার রতনকে যাওয়ার সময় কিছু টাকা দিতে চাইলে সে তার পা জড়িয়ে ধরে বলেছিল যে তাকে কিছু দিতে হবে না, বা তার জন্য কাউকে কিছু ভাবতে হবে না এবং পোস্টমাস্টার চলে যাওয়ার পর রতন সেই পোস্টঅফিসের চারদিকে অশুসজল চোখে ঘুরে বেড়িয়েছে এই আশায় যে হয়তো দাদাবাবু অর্থাৎ পোস্টমাস্টার ফিরে আসবে । কিন্তু অতসীকে সুনির্মল আগের রাতে কিছু জিনিস ও টাকা দিতে চাইলে সে কোনো জবাব না দিয়ে তীব্র অভিমানে দৌড়ে ঘর থেকে বেরিয়ে অন্ধকারে নিরুদ্দেশ হয়েছে, পরদিন সকালে তাকে বিদায় জানাতেও আসেনি, এমনকি বাড়িতে গিয়েও তাকে খুঁজে পাওয়া যায়নি । তাছাড়া পোস্টমাস্টারের মনে একবার শুধু ইচ্ছা জেগেছিল ফিরে গিয়ে রতনকে নিয়ে আসার, কিন্তু ততক্ষণে নৌকার পালে বাতাস লেগেছে, বর্ষার স্রোত খরবেগে বইছে এবং তার মনে এই তত্ত্বের উদয় হয়েছে যে, ‘জীবনে এমন কত বিচ্ছেদ, কত মৃত্যু আছে, ফিরিয়া ফল কী । পৃথিবীতে কে কাহার ।’ (পৃ. 10 ) কিন্তু সুনির্মল তাৎক্ষণিকভাবে অতসীর কথা না ভাবলেও জীবনের শেষ প্রান্তে এসে নিঃসঙ্গ জীবনে তার কথা খুব মনে পড়েছে এবং অতসীর টানেই কলকাতা থেকে ত্রিপুরায় ফিরে এসেছে । সে মনে মনে অনুতপ্ত হয়েছে সেদিনের কথা মনে করে । তার ভাষায়- ‘দুঃখ পাই এই ভেবে যে সেদিন অতসী নামের স্নেহময়ী, সহজ, সরল, প্রশান্ত হৃদয়ের পল্লি বালিকাটির প্রতি আমি সুবিচার করিনি । তার কাছ থেকে শুধু নিয়েছি, ফিরিয়ে দেইনি কিছুই ।’ (পৃ. 18 )

এই অনুশোচনার আগুন সুনির্মলকে দগ্ধ করে মহৎ ও পরিশুদ্ধ করে তুলেছে যা পোস্টমাস্টারের মধ্যে ছিলনা । এর পেছনে কাজ করেছে লেখকের যুগচেতনা । কারণ রবীন্দ্রনাথের যুগের থেকে আজকের যুগের চিন্তা চেতনায় অনেক পরিবর্তন এসেছে । রবীন্দ্রনাথ যেখানে পোস্টমাস্টারের মধ্যে এক নিরাবেগ দার্শনিক উপলব্ধির সঞ্চার করেছিলেন সেখানে সুবিমল রায় সুনির্মলের মধ্যে কৃতকর্ম জনিত প্রায়শ্চিত্তের বোধ জাগিয়েছেন, তার চিত্তশুদ্ধি ঘটিয়ে তাকে সেই



পাহাড়ি জনপদে পাঠিয়েছেন অতসীর খোঁজে । এদিক থেকে বিচার করলে সুবিমল রায় অভিনবত্বের দাবি করতেই পারেন ।

‘ভাঙা সাঁকো’ গল্পটি সুবিমল রায়ের এক অনবদ্য সৃষ্টি । এই গল্পে দুটি অংশ রয়েছে, প্রথম অংশ ‘মল্লিকার কথা’ আর দ্বিতীয় অংশ ‘প্রমথেশের কথা’ । প্রথম অংশে রয়েছে কলকাতার ছেলে অনির্বাণ দত্ত ত্রিপুরার একটি সরকারি দপ্তরের গেজেটেড অফিসার হিসেবে চাকুরি করে । মল্লিকাও কলকাতার মেয়ে, বিবাহসূত্রে অনির্বাণের সঙ্গে তাকেও আগরতলায় চলে আসতে হয় । নতুন পরিবেশে এসে ধীরে ধীরে সে মানিয়ে নিয়েছে এবং এখানেই এসে অনির্বাণের সহকর্মী প্রমথেশের সঙ্গে তাদের পারিবারিক ঘনিষ্ঠতা বাড়ে । প্রমথেশের মধ্যে অনেক গুণ ছিল, যেমন সে একজন দায়িত্বশীল সুযোগ্য অফিসার, কর্মতৎপর, পরোপকারী, বন্ধুবৎসল এবং সর্বোপরি একজন গানের শিল্পী । ফলে সে সহজেই মল্লিকাদের একান্ত আপনজন ও ভরসার পাত্র হয়ে ওঠে । মল্লিকা একবার ছোট শিশু উর্মিকে নিয়ে কলকাতা থেকে আসার সময় প্রমথেশই তার সঙ্গী হয়েছিল । কিন্তু হঠাৎ অনির্বাণ অসুস্থ হয়ে পড়লে অসহায় মল্লিকা টেলিফোনে প্রমথেশের সাহায্য চেয়েছিল, এক্ষেত্রে সামান্য ভুল বোঝাবুঝির জন্য প্রমথেশের উপর মল্লিকার ক্ষোভ ও অভিমান এমন পর্যায়ে পৌঁছে যে অনির্বাণের মৃত্যু সংবাদও প্রমথেশকে জানায়নি, এমনকি অনির্বাণের পেনশানের কাগজপত্র ঠিক করতে আগরতলায় এসেও তার সঙ্গে দেখা করেনি, কারন মল্লিকার তখন মনে হয়েছিল অনির্বাণের মৃত্যুর জন্য প্রমথেশই দায়ী । কিন্তু শেষ জীবনে এসে মল্লিকার খুব মনে পড়েছে প্রমথেশের কথা, মনে হয়েছে সে একটা কিছু রেখে গেছে মল্লিকার গভীর গোপন সত্তায়, যা সে মর্মে মর্মে অনুভব করে ।

অপরদিকে দ্বিতীয় অংশে প্রমথেশের ভাবনায় ধরা পড়েছে অনির্বাণ ও মল্লিকাদের আগরতলায় আসা, তাদের সঙ্গে ঘনিষ্ঠতা গড়ে ওঠা, তাদের আনন্দের সঙ্গী হওয়া ইত্যাদি নানা বিষয় । অনির্বাণের অসুস্থতার দিনে মল্লিকার ডাকে তার না যেতে পারার বিষয়টিও সে স্পষ্ট করেছে এই অংশে । তখন বসের সঙ্গে জরুরি মিটিং নিয়ে সে ভীষণ ব্যস্ত ছিল, পাশাপাশি অনির্বাণদের জন্য উৎকর্ষাও ছিল । কারন সে তাদের সত্যিকারের দাদা বৌদির মতোই শ্রদ্ধা করত, অথচ বৌদি তাকে ভুল বুঝেছেন । সেও অবসর মুহূর্তে মল্লিকার কথা ভেবেছে । এই দুটি

কাহিনীর মধ্য দিয়ে লেখক দেখাতে চেয়েছেন সামান্য ভুল বোঝাবুঝি মানুষের মধুর সম্পর্কে কিভাবে মুহূর্তে ভেঙ্গে দিতে পারে। স্নেহের সম্পর্কের মধ্যে অভিমান দেখা দিলে তা কাটিয়ে ওঠা সহজ হয়না। তাই উভয়েই উভয়ের কথা ভেবেছে, দেখা করার ইচ্ছা জেগেছে, কিন্তু অভিমানের শব্দ প্রাচীর ভেঙ্গে বের হওয়ার সাধ্য উভয়ের কারও ছিলনা। ফলে তাদের হৃদয়ের ভাঙা সাঁকো মেরামত করে পুনরায় জুড়ে দেওয়ার সম্ভাবনা শেষ হয়ে যায়। এ গল্পে লেখক গল্প বলার আঙ্গিকের ক্ষেত্রেও অভিনবত্ব এনেছেন অর্থাৎ ‘মল্লিকার কথা’, ‘প্রমথেশের কথা’ নামে অধ্যায় বিভাজন, তা ছোটগল্পে সচরাচর চোখে পড়ে না।

‘অদৃষ্টের লেখন’ গল্পে এক শ্রমিক নবীনের ভাগ্যবিড়ম্বনার কথা ফুটে উঠেছে। দেশ ভাগের ফলে নবীন স্ত্রী পুত্র নিয়ে ত্রিপুরায় এসে কিভাবে দুর্ভাগ্যের শিকার হয়ে পেটের দায়ে কঠোর পরিশ্রম করে অসুস্থ হয়ে কষ্টের জীবন কাটাচ্ছে তার পরিচয় যেমন রয়েছে তেমনি তার বাউন্ডুলে, বখাটে ছেলে মলয়কে নিয়ে দুশ্চিন্তার পরিচয়ও প্রকাশ পেয়েছে। পুত্র মলয় মদ খেয়ে মাতলামি করে, মানুষের সঙ্গে ঝগড়া করে থানায় বন্দী, সে জানে থানা থেকে ছাড়া পেলে পুনরায় এমন করবে, তবুও সে তাকে ছাড়াতে থানায় গেছে, কারণ সে বলেছে-‘কুপুত্র হলেও কু মা-বাবা তো হতে পারে না’। এটাকে সে অদৃষ্টের লেখন বলে মেনে নিয়েছে। লেখক দেখিয়েছেন নবীন সারাটা জীবন সৎ ভাবে কাটিয়েছে, কোনো অধর্মের কাজ করেনি, অথচ তার এই পরিণামে সে ভীষণ ব্যথিত এবং তার এই অসহায়তা পাঠককেও ব্যথিত করে। আবার ‘মায়ার খেলা’ গল্পে এক সন্তান হারা দম্পতি বিপ্লব চক্রবর্তী ও বিপাশা দেবীর হৃদয় যন্ত্রণাকে যেমন তুলে ধরেছেন লেখক তেমনি নার্সিং হোম থেকে এক অনাথা বালিকাকে এনে তাকে কেন্দ্র করে বিপাশা দেবীর মাতৃ হৃদয়ের পূর্ণতার দিকটিকেও তুলে ধরেছেন। এক্ষেত্রেও মায়ার খেলা অর্থাৎ ভাগ্যের পরিণামকেই তুলে ধরা হয়েছে।

‘শুদ্ধচারিণী’ গল্পে বিধবা শুচি বায়ুগ্রস্ত সুনন্দা দেবীর আচার সর্বস্বতার পরিচয় লেখক তুলে ধরেছেন তাঁর পূজার্চনা, বিভিন্ন বিধি নিয়ম পালনের মধ্য দিয়ে। জাতপাতের ভেদাভেদ ও অস্পৃশ্যতা আধুনিক যুগে এসেও মানুষের মধ্যে কিভাবে শিকড় পুতে বসে আছে তার প্রমাণ সুনন্দা দেবী। মুসলমান মহিলা নূরজাহানের মা তাঁকে পড়ে যেতে দেখে ধরে নির্ধাত মৃত্যুর হাত



থেকে বাঁচালেও তিনি বলেছেন যে, সে নাকি তাকে স্পর্শ করে অশুচি করে দিয়েছে, এর চেয়ে তাঁর মৃত্যুও শ্রেয় ছিল। আজকের যুগে সুনন্দা দেবীর এমন আচরণ আমাদের সত্যিই স্তম্ভিত করে।

‘আঁধারে নীরব ব্যথা’ গল্পে রয়েছে সুতপা দেবী তাঁর স্বামী অজিতেশ বাবুর কুড়িতম মৃত্যুবার্ষিকী উদযাপন উপলক্ষে ‘জীবনমঞ্চ’ কর্তৃক আয়োজিত সাংস্কৃতিক অনুষ্ঠানে আমন্ত্রিত হয়েছেন। সেখানে সম্পাদকের অজিতেশ সম্পর্কে অতি প্রশংসাসূচক ভাষণ শুনে তাঁর অন্তরে নীরব ব্যথার পাশাপাশি প্রতিবাদের তাপে দেহের শিরায় শিরায় এক অদ্ভুত অনুভূতির সঞ্চার হয়েছে। ফলে প্রেক্ষাগৃহের বাইরে বেরিয়ে এসে বুক ভরে টেনে নিয়েছেন বিশুদ্ধ বাতাস। কারণ অজিতেশ সম্পর্কে ব্যবহৃত প্রশংসাসূচক শব্দ- কর্তব্যপরায়ণ, সত্যনিষ্ঠ, মহান আদর্শ, সামাজিক অন্যায়ের প্রতিবাদী ইত্যাদির আড়ালে তার আসল স্বরূপ স্ত্রী হিসেবে শুধু তিনিই জানেন। তিনি কিভাবে এতদিন আঁধারে নীরব ব্যথা বহন করে চলেছেন, সে বিষয়টিকেই লেখক পরোক্ষ ভাবে তুলে ধরেছেন এ গল্পে। অপরদিকে ‘দান প্রতিদান’ গল্পে লেখক দেখিয়েছেন সামান্য ভুল বোঝাবুঝি কিভাবে স্নেহ ভালোবাসার সম্পর্ককে নষ্ট করে দেয়। সাধারণ কাজের মেয়ে প্রণতি সারাদিন কাজের পরিশ্রমে ক্লান্ত হয়েও শুধু স্নেহের টানেই তার পূর্বতন মালিকের ছেলে প্রদ্যুৎকে দেখতে হাসপাতালে গিয়েছে, কিন্তু সেখানে প্রদ্যুতের বাবার রূঢ় ব্যবহার প্রণতির পাশাপাশি পাঠককেও ব্যথিত করে।

‘জীবন যেরকম’ গল্পে দেখা যায় সমাজে এমন অনেক মানুষ রয়েছে যারা নিজে স্ত্রী পুত্র ও আপনজনের ব্যবহারে ক্ষতবিক্ষত হলেও বাইরে প্রকাশ করেন না, বাইরের লোকের কাছে পারিবারিক অশান্তির সংবাদ দিয়ে অন্যের সহানুভূতি কুড়োতে চান না। এরকমই লোক ছিলেন দিবাকর বাবু। সংসারের নানা ঘাত প্রতিঘাত ও ঝড় ঝঞ্ঝায় তিনি ছিলেন স্থির, জীবনের শূন্যতা বা একাকীত্ব তাকে একটুও স্পর্শ করেনি। তার বন্ধু প্রতুলের জবানীতে এমন একটি চরিত্রকে লেখক এ গল্পে অপূর্ব দক্ষতায় তুলে ধরেছেন, যে খুব সহজেই পাঠকের সহানুভূতি পেয়েছে। ‘শুধু আসা যাওয়া, শুধু স্নোতে ভাসা’ গল্পে বিভূতিবাবুর পুরনো বাড়ির সীমানা সংক্রান্ত সমস্যার সূত্রে তার চোখের সামনে ভেসে ওঠে সুদূর অতীত, যা তাকে নষ্টালজিক করে তুলে। বর্তমানে

তিনি সেই বাড়ি বিক্রি করে পুত্রবধুর ভাড়া করা বাড়িতে থাকছেন । এই সূত্রে গল্পের শেষাংশে তার চেতনায় ধরা পড়েছে যাত্রীশূন্য বাসের চিত্রকল্প, যা গল্পটিকে তাৎপর্যপূর্ণ করে তুলেছে । তার মনে হয়েছে যাত্রীশূন্য বাস যেমন শূন্য থেকে পূর্ণ হয়, আবার শূন্য হয়, তেমনি মানুষও চির ভ্রাম্যমান, শুধু আসা যাওয়া, শুধু ঘোঁতে ভাসা, আলো আঁধারে কাঁদা হাসা -এটাই বিধাতার ইচ্ছা । জীবন সম্পর্কে এমন দার্শনিক উপলব্ধি গল্পটিকে সার্থক করে তুলেছে ।

‘পুরাতন প্রাণের টানে’ গল্পে আমরা দেখি ত্রিপুরার এক স্কুল শিক্ষিকা সবিতা তার প্রতিবেশী রজতবাবুর সহায়তায় বি টি পড়ার সুযোগ পেয়ে শান্তিনিকেতনে ভর্তি হয়েছে, কিন্তু সেখানে গিয়ে প্রবল ব্যক্তিত্বশালী অভিজিতের সংস্পর্শে এসে সে অসহায়ের মতো তার কাছে আত্মসমর্পণ করে তার সঙ্গে পাড়ি দেয় সুদূর কানাডায় । শুরু হয় দুর্নিবার জীবন প্রবাহ, যার ফলে সে স্বদেশ, স্বজন ও রজতদাকে একরকম ভুলেই যায় । দীর্ঘ পঞ্চাশ বছরে বার চারেক ভারতে এলেও ত্রিপুরায় আসা হয়নি, তাই শেষ বয়সে একবার আগরতলায় আসে পুরনো প্রাণের টানে, রজতদাকে দেখার গোপন বাসনা নিয়ে । কারণ যৌবনে সে রজতদাকে ভালোবাসত, অথচ বৈভব আর বিদেশের মোহে সে ভুলে গিয়েছিল রজতের প্রেমকে । সে আগরতলায় এসে রজতকে পায়নি, কারণ তিন বছর আগে সে মারা গেছে, কিন্তু রজতের নাতনির কাছ থেকে সে জানতে পারে যে রজত প্রায় সময় সবিতাকে মনে করত, এমনকি তার স্মৃতিকে ধরে রাখার জন্য তার নাতনির নাম রেখেছে সবিতা । ফলে অনুতপ্ত সবিতা তার কৃত কর্মের জন্য মনে মনে ক্ষমা প্রার্থনা করেছে । এখানে লেখক সবিতাকে অনুতাপের আগুনে পুড়িয়ে পরিশুদ্ধ করে তুলেছেন ।

মানুষ মাঝেই ভাগ্য বা ডেসটিনির হাতের ক্রীড়নক -এ বিষয়টিকে দেখানো হয়েছে ‘ডেসটিনি’ গল্পে । গল্প কথকের ভাষায়- “ডেসটিনিকে মানতেই হয় । এই ডেসটিনিই মানুষের মূল চালিকা শক্তি ।” (‘ভাঙা সাঁকো’, সুবিমল রায়, তুলসী পাবলিশিং হাউস, পৃ. 121 ) মানুষ যে জন্মের সময়ই একটি পূর্ব নির্দিষ্ট ছক নিয়ে জন্মায় ও সারা জীবন সেই ছককেই অনুসরণ করে চলে । এ সত্যটিকে অতীন, অনিতা এবং তাদের ছেলে অমল ও অন্তুর সুখী সুন্দর জীবন ঘণ্য রাজনীতির শিকার হয়ে কিভাবে করুণ পরিনতি পেয়েছে তার মধ্য দিয়ে অপূর্ব শিল্প কুশলতায়

তুলে ধরেছেন লেখক। আবার ‘পথভ্রষ্ট’ গল্পে সুখী সুন্দর জীবনের অধিকারী অভিজাত দর্জি সুখেনের রূপের প্রতি মোহ ও চারিত্রিক স্খলন তার জীবনে কি করুণ পরণতি নিয়ে এসেছে তার পরিচয় ফুটে উঠেছে। যে লক্ষ্মীর রূপের মোহে পথভ্রষ্ট হয়ে স্ত্রী পুত্র ছেড়ে সুখেন ঘর ছেড়েছিল, সেই লক্ষ্মীর কাছ থেকেই প্রত্যাখ্যাত হয়ে ভগ্ন স্বাস্থ্য আর হতাশা নিয়ে স্ত্রী সরমার কাছেই তাকে ফিরে আসতে হয়েছে। পরে আবার তার পুরনো একটা এলটমেন্টের জমি বিক্রি করে প্রচুর অর্থলাভের নেশায় অন্ধ ও পথভ্রষ্ট হয়ে বেঘোরে প্রাণ দিয়েছে। তার এই পরিণামকে লেখক আশ্চর্য দক্ষতায় তুলে ধরেছেন এ গল্পে।

‘উত্তরাধিকার’ গল্পে আনন্দগোপাল রায় তার বাল্য বন্ধু কৃষ্ণকিশোর দাসের নাতির কাছ থেকে কে. কে. স্পোর্টিং ক্লাবের প্রাঙ্গণে কৃষ্ণকিশোরের আবক্ষ মূর্তি প্রতিষ্ঠা অনুষ্ঠানের বিশেষ অতিথি হিসেবে নিমন্ত্রণ পেয়ে পূর্ব অভিজ্ঞতা সূত্রে বাল্য বন্ধুর জীবনের স্মৃতিচারণ করেছেন। সেই সূত্রে কৃষ্ণকিশোরের জীবনের উত্থান পতনের পুঙ্খানুপুঙ্খ বিবরণ তুলে ধরেছেন। ‘বাজিকর’ গল্পে সম্ভরোধ কয়েকজন বৃদ্ধ মিলে অবসর বিনোদনের জন্য গঠন করেছেন ‘বৃদ্ধাসর’ যেখানে প্রতি সন্ধ্যায় তাদের আড্ডা জমে ওঠে। এখানেই একদিন খার্চিপূজা উপলক্ষে দুই বৃদ্ধ আগরতলা থেকে মেলা প্রাঙ্গণ পর্যন্ত হাঁটা প্রতিযোগিতার বাজি ধরেন এবং তাদের মধ্য থেকেই বিচারক নির্ধারণ করা হয়। প্রতিযোগিতার দিন জনতার ভিড়ের সুযোগ নিয়ে বিচারকদের ফাঁকি দিয়ে প্রতিযোগীরা গাড়ি করেই গন্তব্য স্থলে পৌঁছে যান, ফলে এখানে বিচারকরাই যেন পরাজিত হন, কারন তারা প্রতিযোগীদের নজরে রাখতে পারেননি।

সবশেষে আমরা বলতে চাই যে, এই গল্পগ্রন্থের অধিকাংশ গল্পই বহুমুখী আবেদনে সমৃদ্ধ এবং এগুলি পাঠকের গল্প পিপাসাকে সহজেই তৃপ্ত করে। গল্পগুলিতে বিষয়ের যেমন বৈচিত্র্য রয়েছে, তেমনি মানব জীবনের বিচিত্র দিককে তিনি এসব গল্পে তুলে ধরেছেন সহজ সরল বাচন ভঙ্গিতে। কিছু গল্পে রয়েছে অতীত স্মৃতিচারণ, আবার কিছু গল্পে রয়েছে কৃতকর্ম জনিত অপরাধ বোধ ও অনুশোচনা। মনুষ্যের আচার সর্বস্বতা ও অস্পৃশ্যতার ক্ষতিকর দিকের পরিচয়ও একটি গল্পে ফুটে উঠেছে, পাশাপাশি পারিবারিক প্রেম ভালোবাসা ও স্নেহ মমতার দিকটিও উঠে



এসেছে দু-একটি গল্পে । সবচেয়ে বড় কথা হল সুবিমল রায়ের গল্প বলার ভঙ্গী পাঠককে সহজেই আকৃষ্ট ও মুগ্ধ করে । আজ ৮৩ বছর বয়সে এসেও তাঁর কলম থামেনি, প্রতিনিয়ত লিখে চলেছেন, পাশাপাশি বিভিন্ন সাংস্কৃতিক কর্মকাণ্ডেও নিজেকে জড়িয়ে রেখেছেন । তাঁর হাত দিয়ে আরো সৃজনশীল সাহিত্য কর্ম প্রকাশিত হবে এই প্রত্যাশা আমরা করতেই পারি ।

#### তথ্যসূত্র / সহায়ক গ্রন্থপঞ্জি

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## কবি অদ্বৈত মল্লবর্মন ও কবি কালিদাস : একটি সমীক্ষা

ডঃ দেবযানী ভট্টাচার্য  
বিভাগীয় প্রধান  
সংস্কৃত বিভাগ  
এম. বি. বি. কলেজ, আগরতলা

তিতাস নদীর পার ধরে পায়ে পায়ে হেঁটে গেলে আমরা এমন একজন কবিকে খুঁজে পাই, তিনি প্রকৃতি ও মানবজীবনকে এক সূত্রে গেঁথেছেন। নিজে যেমন একাত্ম হয়েছেন, ঠিক তেমনি একাত্ম করেছেন পাঠককে। যাঁর রক্তে ছিল দার্শনিকতা, যিনি ছিলেন ব্রহ্মসুন্দরী, শিল্পের বাস্তব রূপকার। ভাবা যায় না ১৯১৪ সালের ১লা জানুয়ারী জেলেপাড়ায় জলজীবী জালোদের ঘরে নিতান্ত নিঃশব্দে যিনি জন্মেছিলেন, হয়তো সেদিন শাঁখ বাজিয়ে উলুধ্বনি দিয়ে ছোট্ট শিশুটিকে স্বাগত জানাবার অবস্থা গোকর্নঘাটের মালোপারায় ছিল না। কিন্তু প্রকৃতির কোলে প্রবাহিত তিতাস নদীর বুকে হয়তো একটি খুশীর ঢেউ পাক খেয়েছিল। হয়তো তিতাসের বুক ছুঁয়ে মৃদু হাওয়া ছুটে গিয়েছিল সারদা দেবীর কোল আলো করা নবজাত শিশুটিকে প্রকৃতির মায়াপরশ দিতে, হয়তো তিতাস বুঝেছিল তার ভবিষ্যৎ পরিচিতির কালজয়ী সন্তান এসে গেছে, কে বলতে পারে .....? হ্যাঁ ..... আমি কবি অদ্বৈত মল্লবর্মনের কথা বলছি।

যাঁর সাহিত্য জীবন শুরু হয় মূলতঃ কবিতা দিয়ে, মাত্র ১৪ বছর বয়সেই ছড়িয়ে পড়েছিল তার কবিখ্যাতি। কলকাতা থেকে প্রকাশিত কিছু কিশোর পত্রিকায় স্কুল পড়ুয়া অদ্বৈতের কবিতাও ছাপা হয়েছিল, “মাস পয়লা”, “খোকাখুকু” বা “শিশুসাথী” ছাড়াও শ্রীহট্ট ও কুমিল্লার আশপাশ থেকে প্রকাশিত বেশ কিছু পত্র-পত্রিকায় তিনি নিয়মিত লিখতেন বলে আমরা জানতে পেরেছি। তিনি ছিলেন প্রকৃতপক্ষে জেলেমালো বা নিম্নবর্ণের মানুষদের জীবন সংগ্রামের চিত্রশিল্পী। শিল্পের আঙ্গিনায় প্রকৃতির সুস্বাদু ঢেলে তিনি এঁকেছেন বাস্তব চিত্র, সেই ব্রাত্য জনেদের।

অদ্বৈত মল্লবর্মনের কবিতাকে সময়ের আলোকে ফিরে দেখা বা তাঁর কবিতার সামগ্রিক বিশ্লেষণ হয়তো আর সম্ভব নয়। কারণ তাঁর হাতে গোনা কয়েকটি মাত্র কবিতার সন্ধান পাওয়া গেলে ও তাঁর সমস্ত কবিতার পাণ্ডুলিপি পুনঃরুদ্ধার করা সম্ভব হয়নি বলেই আমরা জানি। তাঁর প্রথম জীবনে লেখা কবিতার খাতাও হারিয়ে গেছে। ফলে কয়েকটি মাত্র কবিতাকে সম্বল করে একজন কবির অখণ্ড সত্ত্বাকে বোঝা খুবই কঠিন। তবু তার মধ্যেই আমার এই ছোট্ট প্রয়াস। কবির দু-একটি কবিতার ভাবের মধ্যে যেন আর একজন বিশ্ববরেন্দ্র কবির ছায়া দেখা যাচ্ছে। অবাক হবার মত ঘটনা এই যে, এই কবির জন্মকাল খ্রিস্টীয় চতুর্থ শতক (মতান্তর অনুসরণ করেই)। ঠিকই ধরেছেন আমি মহাকবি কালিদাসের কথাই বলছি।

দুই কবির জন্মকালের মধ্যে এতটাই ফারাক রয়ে গেছে যে, ভাবলে আশ্চর্য্য হতে হয় কি করে একটা মিল চলে এল। এটা কি বাইচাঁপ না কালিদাসের রচনা অদ্বৈতের মনকে টেনেছিল? সে যাই হোক, আমার আলোচনায় আমি অদ্বৈত মল্লবর্মনের “ধারাস্রাবণ” কবিতাটিকেই প্রথম নিচ্ছি যেখানে কবি কালিদাসের “ঋতুসংহার” নামক খণ্ডকাব্যটির বেশ মিল পাওয়া যাচ্ছে। যেমন -

অদ্বৈত বলেছেন -

শাওন রে তোর কেমন ধারা।

দিবস নিশি ঝরাস বসি

কোন বিরহীর আঁখির তারা?

অদ্বৈত মল্লবর্মন রোমান্টিক ব্যক্তি ছিলেন তা কেউ স্পষ্টভাবে বলেননি। বরং বলা ভাল যে তিনি ব্রাত্য কথাকার, সংগ্রামী কিংবা প্রতিবাদী কবি এইরকম বিশেষণেই বিশেষিত হয়েছেন। কিন্তু এই “ধারাস্রাবণ” কবিতাটির প্রতিটি লাইনের



দিকে যদি আমরা ভাল করে তাকাই তবে মনের জানালা দিয়ে আমরা এক রোমান্টিক মানসিকতার কবি খুঁজে পাই। যিনি অল্প কয়েকটি কবিতাতেই বুঝিয়ে দিয়েছেন তার অব্যক্ত মানসিকতাকে। এমনিতেই আমরা বলি যে বৃষ্টির দিনে মন যেন কেমন করে। কার জন্য? সবাই সোজা উত্তর দিতে পারি, তাও নয়। কোথায় যেন, কোন অজানা লোকের, আপনজনের কথা তখন মনে পরে যায়। আমাদের সব পাওয়ার মাঝেও যেন বিরহের সুর বাজে। কবির কবিতাও তা-ই মনে করিয়ে দেয়, কবির অব্যক্ত কোন একটা ব্যাথাকে।

এখানে আমরা সংস্কৃত সাহিত্যের বরেন্য কবি কালিদাসের “ঋতুসংহার” নামক খণ্ডকাব্যটির দ্বিতীয় সর্গের বর্ষাবর্ণনার দিকে চোখ রাখতে পারি। যদিও সম্ভবতঃ এটা কবির প্রথম বয়সের রচনা বলেই মনে হয়। কিন্তু ঋতু পরিবর্তনে প্রকৃতির বৈচিত্র্যময় সৌন্দর্যের প্রকাশেই এই কাব্য থেকে থাকেনি। সেই সঙ্গে মানবজীবন ও মনেও যে বিচিত্র অনুভূতির সৃষ্টি হয় তার সার্থক বর্ণনা রয়েছে এতে। আরো গুছিয়ে বলতে গেলে বলতে হয় প্রেমিক-প্রেমিকার হৃদয়বৃত্তিতে এই ষড়ঋতু পরিবর্তন যে, ভাব বৈচিত্র্য নিয়ে আসে, তা অত্যন্ত নিপুণভাবে প্রকাশ করেছেন মহাকবি কালিদাস। .... তিনি বর্ষাঋতুর বর্ণনা দিতে গিয়ে বলেছেন -

বলাহকাশচাশনিশব্দমর্দলাঃ  
সুরেন্দ্রচাপং দধতস্তভিদ্গুনম্।  
সুতীক্ষ্ণধারাপতনোগ্রসায়কৈ-  
স্তদন্তি চেতঃ প্রসভং প্রবাসিনাম্ ॥ (ঋতুঃ- ৪/২)

অর্থাৎ বজ্রধ্বনি যাদের মাদল, সেই মেঘসমূহ বিদ্যুতের গুণযুক্ত ইন্দ্রধনু ধারণ করে অত্যন্ত তীক্ষ্ণ ধারাবর্ষনের ন্যায় বানরাজির দ্বারা বিরহীদের চিত্তকে সবলে বিদীর্ণ করছে। গ্রীষ্মের পর বর্ষার আবির্ভাব শুধুমাত্র প্রকৃতির বুকেই নয়, বিরহীর হৃদয়েও আলোড়ন তুলছে। মেঘের গর্জনে মাদলের ঝংকার তুলে দিবানিশি অবিশ্রান্ত বর্ষন ..... তার প্রিয় বিচ্ছেদ বেদনা আরও বাড়িয়ে দিচ্ছে, দুই কবির রচনাতে একই ভাব।

নীপের শাখে কেশর সাথি  
তুইরে বহাস উতল বাতাস  
মনোমোহন গন্ধ তারি  
কানন মাতাস।

কবি কালিদাস বলেছেন -

কদম্বসর্জার্জুন -কেতকীবনং  
প্রকম্পয়ন্তংকুসুমাবিবাসিতঃ।  
স-শীকরাশ্লোধর -সঙ্গ-শীতলঃ  
সমীরনঃ কং ন করোতি সোৎসুকম্ ॥ (ঋতু ১৭/২)

অর্থাৎ জলকনাবাহী মেঘের সান্নিধ্যে শীতল পবন কদম্ব, শাল, অর্জুন এবং কেতকীবন প্রকম্পিত করে তাদের পুষ্পগন্ধ সুরভিত হয়ে কাকেই বা উৎসুক করছে না? কবির দৃষ্টিতে বর্ষা অনন্যা ..... বর্ষার উজ্জল হাওয়ায় বৃক্ষের ডালে ডালে আলোড়ন, আন্দোলন, ফুলের গন্ধে মাতোয়ারা দিক্‌বিদিক্‌। আনন্দের তরঙ্গ তুলে ঝরে পরছে বারিধারা, ছুটে চলেছে নদী হয়ে সাগর অভিমুখে ..... দিগন্ত বিস্তৃত পারাপার ছুঁয়ে, তরুরাজিকে উৎপাটিত করে।

কালিদাস বলেছেন -

নিপাতয়ন্ত্যঃ পরিতস্তুটুদ্রতমান্  
প্রবৃদ্ধবেগৈঃ সলিলৈরনির্মলৈঃ ॥ (ঋতু ৭/২)

অদ্বৈত বলেছেন -

গতদিনের কত স্মৃতি  
হৃদয়পটে তুইরে জাগাস,  
চক্ষুতে তুই মোহাঞ্জনের

আবেশ লাগাস।

কালিদাস বলেছেন -

বিলোচনেন্দীবর বারি বিন্দুভির,  
নিষিদ্ধ - বিস্মাধর চারুপল্লবাঃ।  
নিরস্ত - মাল্যাভরনানুলেপনাঃ  
স্থিতা নিরাশাঃ প্রমদাঃ প্রবাসিনাম্।। (ঋতু ১২/২)

অর্থাৎ “প্রবাসীদের (দূর গৃহে বাসরতা) যৌবনমদমত্তা পত্নীরা (পতিসঙ্গলাভে) হতাশ হয়ে তাঁদের পদ্মের ন্যায় সুন্দর নয়নের অশ্রুর দ্বারা মনোহর পল্লবের ন্যায় বিষফলের বর্ণবিশিষ্ট অধরকে বিধৌত করে এবং মালা, অলংকারও অনুলেপন পরিত্যাগ করে অবস্থান করছে।” যারা একবার স্বামী বা প্রেমিকের সঙ্গলাভে ধন্য হয়েছে বর্ষার আগমনে তাদের অবস্থা অত্যন্ত করুণ। কবির বর্ণনায় অতীতের সুখস্মৃতি তাদের হৃদয়ে দুঃখের আবহ তৈরী করে দেয়। দুই মেরুর দুই কবির অন্তর্দৃষ্টিতেই তা ধরা পড়েছে।

অদ্বৈত বলেছেন -

রসঘন কেশর রেনু  
ব্রজের কালার কিশোর বেনু  
দুর্যোগভিসারের সাড়া  
কেমন ধারা .....

কালিদাস বলেছেন -

অভীশুচৈর্ধ্বনতা পয়োমুচা,  
ঘনাক্ষকারীকৃতশবরীষপি।  
তড়িৎ-প্রভা-দর্শিত-মার্গ-ভূময়ঃ  
প্রয়াস্তি রাগাদভিসারিকাঃ স্ত্রিয়ঃ (ঋতু ১০/২)

অর্থাৎ “ঘন ঘন গর্জনকারী মেঘের দ্বারা সমাচ্ছন্ন রাত্রি যখন অধিকতর অন্ধকার তখন বিদ্যুতের দীপ্তিতেই পথ দেখে অভিসারিকা কামিনীরা অনুরাগ ভরে দ্রুত গমন করছে।” বিদ্যুতের আলোকে পথ দেখে বা মোহন বাঁশির সুরের টানে ভরা বর্ষায় প্রেমাস্পদের কাছে ছুটে যাওয়ার কথা কালিদাসই নয়, শূদ্রক কিংবা বাংলার বৈষ্ণব কবিদের বর্ণনাতেও বার বার ওঠে এসেছে। এখন বোঝা গেল অদ্বৈতও তা-ই বলতে চেয়েছেন।

অদ্বৈত আরো বলেছেন -

শাওন রে তোর কেমন ধারা  
তোর গানেতে কান পাতিয়ে  
হয়ে যাইরে আপন হারা।  
অবিশ্রান্ত বারি ঝরাস  
গানে গানে পরান ভরাস  
জলে ভরাস চোখের তারা  
কেমন ধারা।

বর্ষা বিরহের ঋতু। প্রবাসী পতি বা প্রেমিকার জন্য তাই বিরহীনি রমনীদের দুর্দশার করুণ চিত্র প্রেমিক কবির হৃদয়কে স্পর্শ করে যায়। ভরা বর্ষার ধারা বর্ষনের সঙ্গীতে হারিয়ে যেতে চায় প্রাণ-মন। প্রত্যেকেই কাছে পেতে চায় তার প্রাণের বা মনের মানুষটিকে। বিরহীর চিত্ত তাই হয়ে ওঠে চঞ্চল। বর্ষায় প্রকৃতি ও নারী দুইয়েরই সমান আকর্ষণ। নববর্ষার জলধারায়, বাতাসের দোলায় গাছের পত্র-পুষ্প শাখা কাঁপতে থাকে তিরতির করে। মনে হয় যেন প্রকৃতি নৃত্যরত। মানুষ ও প্রকৃতির এই একাত্ম মিলন গাঁথা লক্ষ্য করা যাচ্ছে কবি কালিদাস যেমনটি অনুভব করেছিলেন, ঠিক তেমনটিই অনুভব করেছেন অদ্বৈত মল্লবর্মণ।



কালিদাসকে আমরা বলি “প্রকৃতির কবি”, এই “ধারা শ্রাবন” কবিতাটি মন দিয়ে পড়লে অদ্বৈত মল্লবর্মণকেও বলতে হয় প্রকৃতি প্রেমিক কবি। যিনি প্রকৃতি ও মানবসত্তাকে একে অপরের পরিপূরক রূপে উপলব্ধি করেছেন। এখানে পাশাপাশি কালিদাসের ‘মেঘদূত’ গীতিকাব্যটিও আলোচনায় চলে আসে। যা প্রকৃতি ও মানব মনের একাগ্রতার ও প্রতীক বটে। মেঘদূত বিরহের কাব্য রূপে পরিচিত। প্রেমের আসলে দুই প্রাপ্ত। মিলন ও বিচ্ছেদ। সংস্কৃত আলংকারিকের ভাষায় বিপ্রলম্ব ও সম্ভোগ। - ‘বিপ্রলম্বো’ হ’ল সম্ভোগ ইত্যেব দ্বিবিধো মতঃ। মিলনের সুখে বিচ্ছেদের বেদনা জড়িত হয়েই যায়। মিলনে বিরহের আর্তি নেই। কিন্তু বিরহে মিলনের ভাবনা থাকেই। যে ভাবনায় নানা রঙ মিশিয়ে কালিদাস রচনা করেছেন পূর্বমেঘ ও উত্তরমেঘ, যেখানে শুধুমাত্র রামগিরি থেকে অলকাপুরী পর্যন্ত যাত্রাপথের বিবরণই নেই। পথ শেষে যক্ষের কামনার আনন্দ ধারাও সুপ্ত রয়েছে।

বিরহ সম্বন্ধে আসলে অনেক কবি অনেক মত ব্যক্ত করেছেন Emerson- বলেছেন - Love is strongest in pursuit. কোন এক মৈথিলী কবি লিখেছেন - “দূরত্ব দূর গেলো দোণ্ডণ পিরীত”-সেই একই কথা - বিচ্ছেদেই মিলনের পরিপূষ্টি। বিরহের অনলে দক্ষ প্রেমই নিকষিত হেম হয়ে ওঠে কবিদের কলমে। সে যে যুগের কবিই হোক না কেন। বিশেষতঃ বর্ষার বারিধারার পতনে কিংবা তার মুচ্ছনায় কোথায় যেন একটি কষ্টের, অব্যক্ত যন্ত্রনার আলাপন থেকেই যায়। অদ্বৈত ও তার ব্যতিক্রম ছিলেন না। মেঘদূতে যেমন আমরা দেখি যক্ষ প্রিয়মিলনোৎসুক। ঋতুসংহারে আবার দেখি - প্রোষিত ভর্তৃকার বিরহকাতর অবস্থা। অদ্বৈত মল্লবর্মণের কবিতায় তেমনি রয়েছে বিরহের যন্ত্রণা। কবির একান্তই নিজস্ব না উপলব্ধিকৃত সে অন্য গবেষণার বিষয়।

কালিদাসের রচনার মধ্যে আমরা পাই মানব প্রেমই তাঁর প্রেম। মানুষের ভাবনাই তাঁর ভাবনা। মানুষের কল্পনাই তাঁর কল্পনা, মানুষের চাঞ্চল্য তাঁর চাঞ্চল্য, মানুষের বিরহ বা মিলন তাঁরই বিরহ বা মিলন। কিন্তু বিশ্বমানবতায় সম্পূর্ণ, বিশ্বপ্রেমে যার পরিসমাপ্তি।

অদ্বৈত মল্লবর্মণের রচনারও একই বৈশিষ্ট্য চোখে পড়ার মতো।

এবার আসছি “বিদেশী নায়িকা” কবিতাটিতে। এটি ‘মৃত্তিকা’ ১ম ও ৬ষ্ঠ সংখ্যায় লিখেছিলেন অদ্বৈত মল্লবর্মণ। এটি গদ্যছন্দে লেখা। সপ্তসিন্ধুর ওপারে ‘শ্বেতদ্বীপ’, সেখানকার কোন এক সপ্তদশী রূপসীর কথা কবি অত্যন্ত সুন্দরভাবে বর্ণনা করেছেন।

তিনি লিখেছেন -

বাধাহীন বরিধির কালো কলধ্বনি  
তারই ওপারে তোমার দেশ - সেই শ্বেতদ্বীপে।  
রূপসী সপ্তদশী তুমি-  
সপ্ত সমুদ্রের শূন্যতা পেরিয়ে  
‘আমার তটে এসে মুর্ছনা জাগায় - তোমার রূপের ঢেউ।  
এত রূপ তোমার এত যৌবন  
তুমি বাস্তবের নও, কল্পনার  
নইলে তোমার এত রূপ থাকতো না -  
ঈশ্বরের অপটু হাতের খেলায় তুমি নও,  
কল্পনার রাজ্য উজাড় করে তোমাকে সৃষ্টি করেছে এক কথাশিল্পী-  
বিদেশী উপন্যাসের তুমি এক নায়িকা  
আর তুমি এত সুন্দর।

এখানে কবি কালিদাসের বিখ্যাত নাটক ‘অভিজ্ঞানশকুন্তলমের’ একটু ছায়া রয়েছে .....। অভিজ্ঞানশকুন্তলম নাটকের প্রথম অঙ্কে যেখানে হস্তিনাপুরের রাজা দুষ্যন্ত শিকারে বেরিয়ে একটি কৃষ্ণসার মৃগকে অনুসরণ করতে গিয়ে মহর্ষি কশ্যপের আশ্রমের নিকট এসে উপস্থিত হন। এবং একজন তপস্বী বৈখানস দ্বারা প্রতিনিবৃত্ত হন। কারণ তপোবন শান্তির জায়গা এবং এ হরিণ আশ্রমের। রাজাও সসম্মানে তপস্বীর কথা রাখেন। তপস্বীর অনুরোধে আশ্রমের আতিথ্য গ্রহণ করে, বিনীতবেশে



আশ্রমে প্রবেশ করেন। সেখানে প্রথম শকুন্তলার অপরূপ মনমুগ্ধকর রূপ দেখে, শকুন্তলার সখী অনসূয়ার কাছ থেকে তার আসল পরিচয় জানতে পেরে মস্তব্য করেছিলেন -

মানুষীষু কথং বা স্যাদস্য রূপস্য সম্ভবঃ।

ন প্রভাতরলং জ্যোতিরুদেতি বসুধাতলাৎ।। (অভিঃ ২৩/১)

অর্থাৎ ‘মানবীতে এই রূপের সৃষ্টি কিভাবে সম্ভব? বিদ্যুতের ছটা তো মাটি থেকে উঠে না’। কালিদাসের নায়ক দুষ্যন্তও শকুন্তলার অসামান্য রূপে মুগ্ধ ও বিস্মিত হয়ে ভেবেছেন বাস্তবের মাটিতে তো এই অনন্যরূপ অসম্ভব, নির্ঘাৎ এর উৎস অন্য কোথাও। অদ্বৈত মল্লবর্মণও তার কবিতায় একই কথা বলেছেন -

এতরূপ তোমার, এত যৌবন

তুমি বাস্তবের নও, কল্পনার।

নইলে তোমার এতরূপ থাকতো না।

এর পরের লাইন -

ঈশ্বরের অপটু হাতের খেয়াল তুমি নও,

কল্পনার রাজ্য উজাড় করে তোমাকে সৃষ্টি করেছে এক কথাশিল্পী

কালিদাসের নায়ক, বন্ধু বিদুষককে শকুন্তলা কেমন সুন্দর, তা বলতে গিয়ে বলেছেন -

বয়স্য, কিংবৎস্থা -

চিত্রে নিবেশ্য পরিকল্পিত সত্ত্বযোগা

রূপোচ্চয়েন মনসা বিধিনা কৃতা নু।

স্ত্রীরত্নসৃষ্টিরপরা প্রতিভাতি সা মে

ধাতুবিভূত্বমনুচিত্ত্য বপুশ্চ তস্যাঃ।। (অভিঃ - ৭/২)

বন্ধু, বেশী বলার প্রয়োজন নেই -

সৃষ্টিকর্তা বিধাতা আগে তাকে (শকুন্তলাকে) চিত্রে অঙ্কন করে তারপর যেন তাতে প্রাণদান করেছেন। অথবা সমস্ত রূপ একত্র করে মনে মনেই তাকে সৃষ্টি করেছেন। বিধাতার সৃষ্টি ক্ষমতা আর তার দেহলাবন্যের কথা ভেবে আমার এই ধারণা হয়েছে যে সেই (তাপসকন্যা শকুন্তলা) বিধাতার এক অনন্য সৃষ্টি।

অর্থাৎ দুই কবিই তাদের নায়িকার অসামান্য রূপলাবন্যের ছটাকে কল্পনার সৃষ্টি বলতে চেয়েছেন। আশ্চর্যের বিষয় দুই কবির কেউই নায়িকাকে বাস্তবে ঈশ্বরের সৃষ্টি মানতে নারাজ। তাদের মতে স্বয়ং ভগবান হাতে তুলি, পেন্সিল প্রভৃতি উপকরণ দিয়ে বা খেয়ালবশতঃ তাদের নায়িকাকে সৃষ্টি করেননি। তাই তাদের লাভণ্য, মালিন্যমুক্ত ও সৌকুমার্য সম্পূর্ণরূপে রক্ষিত হয়েছে। কারণ তারা মানস সৃষ্টি।

মানব চরিত্র অনুধাবনে কালিদাস অতুলনীয়। অন্তর্জগৎকে তিনি যেন প্রত্যক্ষ দেখতেন। এই প্রত্যক্ষ দর্শন আর তাঁর অসাধারণ নব নব উন্মেষশালী প্রতিভার সংযোগেই সৃষ্টি হয়েছে তাঁর অনুপম সাহিত্য সম্ভার। সাথে ছিল প্রকৃতি জগৎ, মানুষ আর প্রকৃতির মেলবন্ধন তার কাব্য নাট্য প্রতিভাকে চূড়ান্ত উৎকর্ষ দান করেছে। আর তাঁকে পৌছে দিয়েছে খ্যাতির শীর্ষে।

আর অদ্বৈত মল্লবর্মণের ক্ষেত্রে ও বলতে হয় একই কথা। জীবনানন্দ দাশ কবিতার ভাবনা নিয়ে খুব সুন্দর ও গুরুত্বপূর্ণ একটি কথা বলেছিলেন। তিনি বলেছিলেন - “সকলেই কবি নয়। কেউ কেউ কবি।” তাঁর ভাষায় - “কবি হতে গেলে হৃদয়ে কল্পনা থাকতে হবে, কল্পনার ভেতরে থাকতে হবে চিন্তা এবং অভিজ্ঞতার সারবত্তা।” সৌভাগ্যক্রমে অদ্বৈত মল্লবর্মণের মধ্যে একজন সার্থক কবি হওয়ার সমস্ত গুণাবলীই ছিল। যা তাঁর পুনরুদ্ধারকৃত গুটিকয়েক কবিতার প্রতি ছত্রেরই পরিস্ফুট। মানুষ-প্রকৃতি-মন নিয়ে তিনি হারিয়ে গেছেন কল্পনার রাজ্যে। সৃষ্টি যা করেছেন, এক কথায় অনবদ্য। অমর হয়ে থাকবেন যুগে যুগে তাঁর সৃষ্টি সম্ভারের মাঝে। তিতাস ..... অদ্বৈতের প্রাণের তিতাস বয়ে যাবে প্রিয় সন্তানের স্বপ্নকে বুকে জড়িয়ে ..... অমলিন ..... দেশকালের গভী ছাড়িয়ে ..... দূর থেকে বহুদূরে ..... বিশ্বের দুয়ারে। ..... মনে

পড়িয়ে দেবে অদ্বৈত মল্লবর্মনের কথা ..... চিনিয়ে দেবে অদ্বৈত মল্লবর্মনকে। যেমন আজ দিচ্ছে।

১। অদ্বৈত মল্লবর্মন রচনাসমগ্রঃ সম্পাদনায় অচিন্ত্য বিশ্বাস, দে'জ পাবলিশিং/ প্রথম প্রকাশ জানুয়ারী, ২০০০, পুনর্মুদ্রণ, এপ্রিল, ২০১৫।

২। মেঘদূত ও সৌদামনী - সত্যনারায়ণ চক্রবর্তী, সংস্কৃত পুস্তক ভাণ্ডার, প্রথম সংস্করণ ২৩শে আগষ্ট, ২০০০।

৩। ঋতুসংহারম্ - ডঃ ধ্যানেশ নারায়ণ চক্রবর্তী, সংস্কৃত পুস্তক ভাণ্ডার, প্রথম সংস্করণ, ২০০৩।

৪। সংস্কৃত সাহিত্য সম্ভার (Vol. XI)ঃ প্রথম প্রকাশ ১৪ই সেপ্টেম্বর ১৯৮১।

৫। কালিদাস সমগ্রঃ নবপত্র প্রকাশন, তৃতীয় মুদ্রণ জানুয়ারী, ১৯৯২।

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