

Indian Literature – Vedic, Buddhist, Jain and Sanskrit

Vedic Literature

The Vedas are said to have been passed on from one generation to the next through verbal transmission and are, therefore, also known as Shruti (to hear) or revelation.

The term Vedic literature means the four Vedas in their Samhita and the allied literature based on or derived from the Vedas. We classify the Vedic literature into the following categories:

- I. The four Vedas i.e. the Rig, Sama, Yajur and Atharva and their Samhitas.
- II. The Brahmanas attached to each Samhita.
- III. The Aranyakas.
- IV. The Upanishads.

Shruti Literature and Smriti Literature

- The Vedic literature is broadly divided into two categories viz. **Shruti** and **Smriti**.
- Shruti is “that which has been heard” and is canonical, consisting of revelation and unquestionable truth, and is considered eternal.
- Shruti describes the sacred texts comprising the central canon of Hinduism viz. **Vedas, Brahmanas, Aranyakas, & Upanishads**.
- Smriti literally means “*that which is remembered, supplementary and may change over time*”.
- It is authoritative only to the extent that it conforms to the bedrock of Shruti and it is **entire body of the post Vedic Classical Sanskrit literature**.
- It comprises **Vedanga, Shad darsana, Puranas, Itihasa, Upveda, Tantras, Agamas, Upangas**.

Shruti Literature

➤ Rig-Veda

- ❖ Rig-Veda is known as the oldest religious text in the world. It is also known as “First testament” of mankind.
- ❖ It was composed around 1700 BC. Last hymns were composed between 1500-1200 BC.
- ❖ It’s a collection of hymns by a number of priest families.

- ❖ It is organized in 10 books which are called Mandalas. The first and tenth Mandalas are the youngest and the longest books. Second to Seventh Mandalas are oldest parts of Rig-Veda but the shortest books.
- ❖ Rig-Veda is neither a historical nor a heroic poem but is mainly a collection of hymns by a number of priestly families. These were recited at the time of sacrificial rites and other rituals with utmost devotion.
- ❖ The Rig-Veda contains 1017 (1028, including 11 hymns of the Valakhilya recession) hymns (Sukta) and is divided into ten mandalas.
- ❖ The first and the tenth Mandalas are said to have been added later as their language differs slightly from the other eight Mandalas.

➤ Yajurveda

- ❖ “*Yajus*” means "sacrificial formula" and Yajurveda is the book of sacrificial prayers. It contains the **rituals of the Yajnas**.
- ❖ It is estimated to have been composed between 1,400 and 1000 BC.
- ❖ It prescribes the rituals for performing different sacrifices.
- ❖ **Distinction between Black and White Yajurveda**
 - i. There are two distant forms of this Veda. In the oldest, the instructions about rituals are mingled with the verses from the Rig-Veda. The chief recession of this is that taught by a school of teachers called the Taittiriya. This was called **Black Yajurveda**.
 - ii. At a later date other scholars called the Vajasaneyins separated the explanatory matter from the verses to be recited and hence were called white (Shukla) Yajurveda, the other being called the black (**Krishna**) **Yajurveda**.
 - iii. This implies that the Krishna Yajurveda includes the Brahmana prose discussions within the Samhita (i.e. it has no Brahman) while the Shukla Yajurveda has separately a Brahmana text, the Shatapatha Brahmana.

➤ Sam Veda

- ❖ “Saman” means melody and it contains the Rhythmic compilation of Hymns of Rigveda.
- ❖ It contains 1549 hymns which are meant to be sung at the soma sacrifice by

a special class of Brahmans called "Udgatris".

- ❖ *Gandharveveda is Samveda's Upveda is is a technical treatise on Music, Dance and Drama. Bharat's Natyashashtra is based upon Gandharvaveda.*

➤ Atharva-Veda

- ❖ Atharva-Veda is entirely different from the other three Vedas and is chronologically the last of the four.
- ❖ It is important and interesting as it describes the popular beliefs and superstitions of the humble folk.
- ❖ Atharvaveda contains the magic spells, incorporates much of early traditions of healing and magic that are paralleled in other Indo-European literatures.
- ❖ For a very long time it was not included in the category of the Vedas.

➤ Brahmanas

- ❖ The Brahmanas are the prose texts which explain the hymns in the Vedas, give explanation and applications and related stories of their origin.
- ❖ They also have some stories related to the certain persons related to the Vedic Text.

➤ Aranyakas

- ❖ The Aranyakas were written in Forests and are concluding parts of the Brahmans.
- ❖ *Aranyakas don't lay much emphasis on rites, ritual and sacrifices but have philosophy and mysticism. So they have moral science and philosophy.* It also provides the details of the Rishis who lived in jungles.
- ❖ Aranyakas were written mainly for the hermits and students living in the jungles.
- ❖ Aranyakas are the concluding portion of the Brahmanas or their appendices. They lay emphasis not on sacrifices but on meditation. They are in fact, opposed to sacrifices and many of the early rituals. Their stress is on moral values.
- ❖ They form a bridge between way of work (karma marga) which was the sole concern of the Brahmanas and the way of knowledge (gyan marga) which

the Upanishads advocated.

➤ The Upanishads

- ❖ “Upa” means nearby and “sada” means sit. So Upanishads contain the knowledge imparted by the gurus to their disciples.
- ❖ Eventually the word began to be used for the secret knowledge imparted by the guru to his selected pupils.
- ❖ Upanishads specify philosophical knowledge and spiritual learning.
- ❖ *The main motto of the Upanishads is “Knowledge Awards Salvation”*
- ❖ Upanishads are called Vedanta (the end of the Veda) firstly, because they denote the last phase of the Vedic period and secondly, because they reveal the final aim of the Veda.
- ❖ The Oldest Upanishads are Brhadaranyaka and Chandogya Upanishads which date as back as the first millennium BC. Latest were composed in the medieval and early modern period.
- ❖ The latest Upanishad is Mukhtika Upanishad and was recorded by Dara Shikoh. It dates to 1656. Dara Shikoh was son of Mughal emperor Shah Jahan and is known to have translated fifty Upanishads into Persian.
- ❖ There are 108 Upanishads. *11 are predominant and they are called “Mukhya Upanishads”*.

Smriti Texts

➤ Vedangas

- ❖ Vedangas are the first series in the Smriti Literature. These refer to six auxiliary disciplines associated with the study and understanding of the Vedas. They are as follows:

1. Shiksha (Phonetics)

- ✓ Its aim is the teaching of the **correct pronunciation** of the Vedic hymns and mantras.

2. Kalpa (Ritual Canon)

- ✓ It contains the sacrificial practice and systematic sutras. There are three kinds of Sutras part of Kalpa:

- ✓ **Srautasutras**, which are based on the Shruti, and teach the performance of the great sacrifices, requiring three or five sacrificial fires.
- ✓ **Smartasutras**, or rules based on the Smriti or tradition.
- ✓ The Smartasutras have two classes viz. **Grhyasutras**, or domestic rules which are basically treating the rites of passage, such as marriage, birth, namegiving, etc., connected with simple offerings into the domestic fire and **Dharmasutras** or customs and social duties.
- ✓ The **Dharmasutras** are the first four texts of the Dharmasastra tradition and they focus on the idea of dharma, the principal guide by which Hindus strive to live their lives. The Dharmasutras are written in *concise prose, leaving much up to the educated reader to interpret.*

3. Vyakaran (Grammar)

- ✓ Vyakaran includes the Aṣṭadhyayi, of Panini. Most of the work of very early Indian grammarians ranging to 8th century BC is lost. There are 4 parts of Panini's Grammar:
 - Sivasutra: Contains phonology
 - Aṣṭadhyayi: Contains morphology (construction rules for complexes)
 - Dhatupaṭha: Contains list of roots (classes of verbal roots)
 - Gaṇapaṭha: Contains list of classes of primitive nominal stems

4. Nirukta (explanation)

- ✓ It is traditionally attributed to Yaska, an ancient Sanskrit grammarian. It deals with etymology, particularly of obscure words, especially those occurring in the Veda.

5. Chhanda (Vedic meter)

- ✓ It measures and divides Vedic Mantras by number of padas in a verse.
- ✓ Number of padas divides each verse, hymn, or mantra and number of syllables divides each pada.

6. Jyotisha (Astrology)

- ✓ It describes rules for tracking the motions of the sun and the moon and the foundation of Vedic Jyotish.

➤ Epics (Itihasa)

❖ **Ramayana**

- ✓ Created by Maharishi Valmiki. Consists of 24,000 verses in seven books (Kandas) and 500 sargas and tells the story of Rama.
- ✓ Valmiki is also regarded as India's First Poet.
- ✓ It inspired Tulsikrita Ramayan “Ram Charit Manas” in 1576 by Tulsi Das.

❖ **Mahabharata**

- ✓ The Mahabharata is attributed to Maharishi Vyas and the tale known as Bharta is a shorter version of 24,000 verses, while the Mahabharata contains 1 Lakh verses and 1.8 million words which makes it 4 times of Ramayana.

➤ Puranas:

- ❖ They are late descriptions of ancient legends and consist of history of the universe from creation to destruction, genealogies of kings, heroes, sages, and demigods, and descriptions of Hindu cosmology, philosophy, and geography.
- ❖ They are colored with superstitions and also represent a corrupt form of Hindu Philosophy. There are 18 major Puranas.

➤ Upaveda

- ❖ Upaveda means applied knowledge and are traditional literatures which contain the subjects of certain technical works. They are as follows:
 - ❖ Ayurveda: Deals in Medicine and associated with the Rigveda
 - ❖ Dhanurveda: Deals in Archery and associated with the Yajurveda
 - ❖ Gandharvaveda: Deals with Music and Dance and associated with the Samaveda
 - ❖ Shastrashastra: Deals with military technology and associated with the Atharvaveda.

Notable Early Scholars in Sanskrit and Their Works

Some scholars have shown on the basis of evidence in *Shatapatha Brahmana* that Indian geometry predates Greek geometry by centuries.

It has been argued that Geometry and Mathematics had a ritualistic beginning in India centuries before Greeks or Babylon. In these rituals, Earth was represented by Circular altar and heavens were represented in Square altar. There were eagle shaped altars also.

➤ Sulvasutras

- ❖ It deals with complex fire altars of various shapes constructed with bricks of specific shapes and area: the total area of the altar must always be carefully respected. This proves that despite of no existence of algebra, there was an awareness of precise purely geometrical calculations.
- ❖ *Sulva sutras belong to a bigger text Shrauta Sutras*
- ❖ The four major Sulva Sutras, which are mathematically the most significant, are those composed by **Baudhayana, Manava, Apastamba and Katyayana**.
- ❖ Out of them the oldest belongs to Baudhayana and dates back to 600BC. They discuss the cases of the Pythagorean Theorem and Pythagorean triples.
- ❖ The Baudhayan Sulbasutra 1.48 says: *The diagonal of a rectangle produces both areas produced separately by its two sides.*
- ❖ Sulva Sutra also mentions a ritual which included “Squaring the circle” (and vice-versa), thus geometrically constructing a square having the same area as a given area.

➤ Manusmriti

- ❖ Manusmriti is one of the earliest and most authoritative law texts followed by the Hindus, covering a wide range of topics such as creation of the world, sacraments like ‘Upanayana’ and marriage; duties of men and women placed in different strata of society and stages of life; penitential rites for violation of codes of conduct; and so on.
- ❖ It is a metrical (one that is written in poetic verses) text, which presents a discourse given by the Prajapati Manu, to a congregation of seers after a Mahapralaya (great Floods) in ancient India.
- ❖ The discourse was recorded and preserved in memory as a dialog between himself and the sage Bhrigu in some 2700 Shlokas.

- ❖ Manusmriti remained the standard point of reference for all future Dharmasastras. It was translated in 1794 by Sir William Jones.

➤ Manusmriti and the Concept of Varna

- ❖ In line with the ancient Indian tradition, Manu distinguished between various human beings on the basis of their basic tendencies and inclinations.
- ❖ The human beings were classified on the basis of the preponderance of a particular guna. Thus in according to Manusmriti, the *Satvik guna preponderates in Brahmins, Rajas Guna dominates in Kshatriyas and Tamas Guna dominates in the Vaishyas and Shudras.*
- ❖ Further, in the ancient texts, the four Varnas were compared with the limbs of human body. Thus, Brahmin was represented by mouth; the Kshatriya by arms; the vaishya by navel and the shudra by feet. This is why Brahmins got the top status. They used to teach, preach and advise, that is, the functions of higher intellect were their prerogative. The kshatriyas were the protectors of dharma, while vaishyas performed trade and agriculture. The shudras used to serve the higher varnas.
- ❖ Though the possession of quality and **not the accident of birth** was said to determine one's varna; but in actual fact this salutary advice was followed more in breach than in observance.

Selected Topics in Buddhist Literature

➤ Tripitaka

- ❖ Tripitaka or Three Baskets is a traditional term used for various Buddhist scriptures.
- ❖ The three pitakas are *Sutta Pitaka, Vinaya Pitaka and Abhidhamma Pitaka.*

1. Sutta Pitaka:

- ✓ It contains over 10 thousand suttas or sutras related to Buddha and his close companions. This also deals *with the first Buddhist council which was held shortly after Buddha's death, dated by the majority of recent scholars around 400 BC, under the patronage of king Ajatasatru with the monk Mahakasyapa presiding, at Rajgir.*

2. Vinaya Pitaka

- ✓ The subject matter of Vinay Pitaka is the monastic rules for monks and nuns. It can also be called as Book of Discipline.
- ✓ Its three books are Suttavibhanga, Khandaka and Parivara.

3. Abhidhammapitaka

- ✓ Abhidhammapitaka deals with the philosophy and doctrine of Buddhism appearing in the suttas. However, it does not contain the systematic philosophical treatises.

➤ Jatakas

- ❖ Jatakas are very much close to folklore literature and they contain the tales of previous births of Buddha in poems.

➤ Milinda Panha

- ❖ *Milinda Panha* means "Questions of Milinda". It contains the dialogue of Indo-Greek king *Meander* and Buddhist monk *Nagasena*.
- ❖ It has been written in second to first century BC and initially written in Sanskrit. There is only one copy in Sri Lanka Pali of this work. *It was printed in the 6th Buddhist council in 1954.*

➤ Dipavamsa

- ❖ The meaning of Dipavamsa is "Chronicle of Island". It is the oldest historical record of Sri Lanka.
- ❖ It is believed to have been compiled around 3rd or 4th century BC somewhere in Anuradhapura in Sri Lanka during the reign of **King Dhatusena of Sri Lanka**, the first Mauryan King of Sri Lanka.
- ❖ Dipavamsa is one of the most important works in Pali Literature. It details the tooth relic and Bodhi Tree's arrival in Sri Lanka. It also deals with the arrival of Buddha's teaching and preachers in Sri Lanka. It mentions that Buddha visited Kelaniya and Dighavapi in Sri Lanka.

➤ Mahavamsa

- ❖ *Mahavamsa* is the most important Pali epic poem. Mahavamsa means "Great Chronicle". It's a historical poem in Pali Language which deals about the Kings of Sri Lanka.

- ❖ The Mahavamsa, Dipavamsa, Culavamsa (small chronicle) all together are sometimes known as Mahavamsa. It deals with the royal dynasties of not only Sri Lanka but the whole Indian subcontinent and *is known as world's longest unbroken historical accounts*. The consecration of Asoka and details of Selucus and Alexander have been detailed in it.

➤ Mahavastu

- ❖ Mahavastu means the "Great Event". It's a work in prose and verse and is written in Sanskrit, Pali and Prakrit. It details the miracles & earlier lives of Buddha.

➤ Buddha Charita

- ❖ *Buddha Charita* is an epic style Sanskrit work by **Ashvaghosa**.
- ❖ It mainly deals with Buddha's Life.

➤ Lalitavistara

- ❖ In Sanskrit Lalit is a Lotus. Lalitavistara is a Sanskrit text that deals with the biography of Buddha.

Select Buddhist Scholars

➤ Moggaliputta Tissa

- ❖ The most important turning point in the expansion of Buddhism in India was the emergence and conversion of Asoka the Great (304–232 BC). He embraced Buddhism after 8 years of his coronation; he became a Buddhist and made it his state religion in 260 BC.
- ❖ He convened the third Buddhist council, which was held in Pataliputra in the presidency of *Moggaliputta Tissa*.

➤ Asvaghosa

- ❖ Asvaghosa is the greatest Indian Poet Prior to Kalidasa. He is known as *first Sanskrit Dramatist of the world*.
- ❖ His epics rivalled the contemporary Ramayana. He wrote Buddhist texts in Classical Sanskrit.

- ❖ He was the court writer and religious advisor of Kushana king Kanishka. His main works are Buddhacharita, Mahalankara (Book of Glory) and Saundaranandakavya (details the life of Nanda).

➤ Nagarjuna

- ❖ Nagarjuna founded the Madhyamika school of Mahayan Buddhism. He was contemporary of Satavahana King Gautamiputra. He was born in a Brahmin family in Nagarjunkonda in modern Andhra Pradesh.
- ❖ Most important work is *Mulamadhyamakakarika* , which means *Fundamental Verses on the Middle Way*.
- ❖ His theory is also known as *Shunyavad* "emptiness".

Select Topics in Jain Literature

➤ Purva, Agama, Bhadrabahu, Sthulbhadra & Vishaka

- ❖ The canonical literature of Jainism is claimed to have started from Adinatha, the first tirthankara. It is said that these teachings were forgotten and revived by the Tirthankaras from time to time.
- ❖ The teachings of the Tirthankaras before Mahavir are known as **Purva**. There were total 14 Purvas which were memorized and passed on through the ages, but later lost into oblivion.
- ❖ Some Jain traditions say that Jain Scholar Bhadrabahu, who was also a *Sutra Kevali* (one who can recite all sutras), could recite the 14 Purvas. Bhadrabahu is considered to be the last expert of fourteen Purvas. He later migrated to South India, where he would later become guru of Chandragupta Maurya.
- ❖ Jain Literature is called **Jain Agamas**. They are canonical texts of Jainism based on Mahavira's teachings. There are in all 46 texts.
 - ✓ 12 Angas
 - ✓ 12 Upangas
 - ✓ 6 Chedasutras
 - ✓ 4 Mulasutras
 - ✓ 10 Prakirnaka sutras
 - ✓ 2 Culikasutras

➤ Jain Religious Canon

- ❖ *12 Upanga Agams: Upanga Agamas are explanations to Angas*
- ❖ *6 Chedasutras: These are texts related to behavior of Monks and Nuns.*
- ❖ *4 Mulasutras: These are texts which provide a base in the earlier stages of the monkhood*
- ❖ *10 Prakirnaka sutras: These are texts on Independent or miscellaneous subjects*
- ❖ *2 Culikasutras: These are texts which further enhance or decorate the meaning of Angas.*

➤ Acharang Sutra (Acaranga Sutra)

- ❖ Acharanga Sutra is the first of the eleven (or 12) Anga Agamas. It is the first text that was studied by the Jain monks.
- ❖ This agam describes the conduct and behaviour of ascetic life and the description of the penance of Lord Mahavir. This is the oldest agam from a linguistic point of view. It was written in Ardhamagadhi *Prakrit*.

➤ Kalpa Sutra

- ❖ Kalpa Sutra was written by Bhadrabahu.
- ❖ It contains the biographies of the Jain Tirthankaras, most notably Parshvanath and Mahavira, including the latter's Nirvana.
- ❖ Classic Sanskrit Literature
- ❖ The classical period of Sanskrit literature dates to the Gupta period and the successive pre-Islamic Middle kingdoms of India.
- ❖ This period is known for development of Sanskrit literature in all genres viz. Drama, Scholarly treatises, Stories, Epic Poems, Literature related to Science and Technology and the Puranas.

Famous Sanskrit literature and their writers

➤ Asvaghosha

- ❖ Asvaghōṣa (Circa. 80 – 150 AD) is considered to be the first Sanskrit Dramatist of the world. He was a born Brahmin, but later turned into a Buddhist Monk.
- ❖ He was the court poet of the Kushana king Kanishka.
- ❖ Asvaghosha wrote in Classical Sanskrit.
- ❖ His work, Buddha Charita is an epic style Sanskrit work. It mainly deals with Buddha's Life.
- ❖ Asvaghosa also wrote a Sanskrit Drama “Sariputra Prakaran” which deals about Sariputta or Sariputra the disciple of Buddha.
- ❖ Asvaghosha also wrote the Saundaranandakavya, a kavya poem with the theme of conversion of Nanda, Buddha's half-brother, so that he might reach salvation.

➤ Sudraka

- ❖ The real name of Sudraka was Indranigupta and he was an Abhira King of first or second century AD. The Abhiras were contemporary and vassals of the Saatavahans.
- ❖ Sudraka has become immortal in the form of three Sanskrit Plays ascribed to him viz. Mricchakatika (The Little Clay Cart), Vinavasavadatta, and a bhana (short one-act monologue), Padmaprabhritaka.

➤ Bhasa

- ❖ A very little is known about Bhasa. He is most probably senior to Kalidasa and is one of the earliest and most celebrated Indian playwrights.
- ❖ His most important works are *Swapnavasavadattam*, *Panch-ratra*, *Madhyama-vyayoga*, *DutaGhattotkacha*, *Duta-Vakya*, *Urubhanga*, *Karna-bhara* and *Bal Charita*.
- ❖ Svapnavasavadattam is the best known work of Bhasa. It was lost and rediscovered in 1912 in Kerala. This play is around the Vatsa king Udayana and his queen Vasavadatta, the daughter of Pradyota, the ruler of Avanti.

➤ Kalidasa

- ❖ Kalidasa is the immortal poet and playwright of India and a peerless genius

whose works became famous worldwide in modern world. Translation of Kalidasa's works in numerous Indian and Foreign Languages have spread his fame all over the world and now he ranks among the top poets of all times.

❖ Works of Kalidasa

1. Malavikagnimitram

- ✓ Malavikagnimitram is the Sanskrit play, which depicts Agnimitra as its hero. Malvika is a maid servant whom Agnimitra falls in love. This was known to his chief queen, who imprisons her. Later it was known that Malvika was of a royal birth and she was accepted as queen of Agnimitra. Malavikagnimitram gives account of Rajsuya Yajna of Pushyamitra Shunga, father of Agnimitra.

2. Abhijñanasakuntalam

- ✓ Abhijñanasakuntalam is a Sanskrit play which depicts the story of Dushyanta, king of Hastinapur, and Shakuntala, daughter of the sage Vishwamitra and the apsara Menaka.

3. Vikramorvasiyam

- ✓ Vikramorvasiyam is a Sanskrit Drama which depicts the love story of Puruvas a Vedic King and Urvashi. Puruvas is chosen to reflect the qualities of Chandragupta Vikramaditya.

4. Raghuvamsa

- ✓ Raghuvamsa is a Sanskrit epic poem that is a long (19 Sargas) narration of genealogy of Lord Rama's Raghu Vamsa beginning with King Dileep up to Agnivarna.

5. Kumarasambhava

- ✓ Kumarasambhava is an epic poem which has 17 sargas, out of which only 8 are accepted as his authorship. Kumara or prince is Kartikeya and it refers to birth of Kartikeya, son of Shiva and Parvati after a lot of Tapasya to win Shiva who had already won Kamdeva (God of Love).
- ✓ Kartikeya later killed Tarakasur demon who was blessed that he would not be killed by any other than son of Shiva and Parvati.

6. Ritusamhara

- ✓ Ritusamhara is again a mini epic poem in Sanskrit which has 6 Sargas.

These Sargas refer to 6 seasons (Ritu) viz, Grisma (Summer) , varsha (Rains), Sharad (Autumn), Hemanta (Cool), Sisira (Winter) and Vasantha (Spring).

- ✓ It mentions the feelings, emotions and experiences of lovers in 6 seasons. Ritusamhara is considered to be the earliest work of Kalidasa.

7. Meghaduta

- ✓ Meghaduta means a messenger of Clouds. It's a poem with 11 stanzas. The theme of Meghaduta is a Yaksha, who is subject of Lord Kubera (King of Wealth). His wife is waiting for him at Mount Kalidasa. Kubera at some place in central India exiled the Yaksha and he wishes to send his message to his wife. For that, he convinces a cloud to take his message and pass it on to his wife. The poem narrates about the beautiful sights and visual perceptions he would come across while going northwards to take this message to his wife.

➤ Bharavi

- ❖ Bharavi is best known for **Kiratarjuniya**, written around 550 CE. Kirat is Shiva who speaks to Arjuna in form of a mountain dwelling hunter. This epic style Kavya is considered to be among the greatest works in Sanskrit which is known for complexity of the Sanskrit.

➤ Magha

- ❖ Sisupala-vadha was written by Magha in 7th century AD and is one of the 6 Sanskrit Mahakavyas.
- ❖ It was inspired by the works of Kalidasa, Bharavi and Dandin, all of them, as the author says but surpasses Bharavi in his style and wordplay.

➤ Vishakhadatta

- ❖ We know about only two plays of Vishakhadatta viz. **Mudrarakṣasa** and the Devichandraguptam. Out of them Mudraraksasa is the only surviving play. Devichandraguptam is survived in fragments only.
- ❖ Mudrarakshasha means "Ring of the Demon". It narrates the ascent of Chandragupta Maurya to throne. Rakshasha is the last Minister of Nandas who is lured in Chandragupta's side, by Chanakya.

➤ Vatsyayana

- ❖ Vatsyayana was the author of Nyaya Sutra Bhashya, which was the first commentary on Gautama's Nyaya Sutras.
- ❖ Kamasutra is a treatise on Human Sexual behaviour and makes the part of the Kamashashtra. The first transmission of the Kamashashtra is attributed to Nandi, the bull of Shiva, as per the traditions.

Sanskrit Literature in Science and Technology

➤ Aryabhatta

- ❖ Aryabhatta was the legendary mathematician of the Gupta Era. He wrote Aryabhattiya at the age of 23 years and later, Arya-Siddhanta.
- ❖ He worked on the approximation for pi to 3.1416.
- ❖ In trigonometry, he concluded for a triangle, the result of a perpendicular with the half-side is the area.
- ❖ He also worked on the motions of the solar system and calculated the length of the solar year to 365.8586805 days.
- ❖ Aryabhatta lived in Kusumpur in Pataliputra.
- ❖ Aryabhata is the author Aryabhatiyam which sketches his mathematical, planetary, and cosmic theories. This book is divided into four chapters:
 - ✓ The astronomical constants and the sine table
 - ✓ Mathematics required for computations,
 - ✓ Division of time and rules for computing the longitudes of planets using eccentrics
 - ✓ The armillary sphere, rules relating to problems of trigonometry and the computation of eclipses.
- ❖ Aryabhatta took the earth to spin on its axis; this idea appears to have been his innovation.
- ❖ Not only did Aryabhata believe that the earth rotates, but there are glimmerings in his system (and other similar systems) of a possible underlying theory in which the earth (and the planets) orbits the sun, rather than the sun orbiting the earth. The evidence is that the basic planetary periods are relative to the sun.
- ❖ That Aryabhata was aware of the relativity of motion is clear from this passage in his book *“Just as a man in a boat sees the trees on the bank move in the opposite direction, so an observer on the equator sees the*

stationary stars as moving precisely toward the west."

- ❖ Aryabhata deduced that earth is a rotating sphere: the stars do not move, it is the earth that rotates. Its diameter is 1,050 yojanas. Its circumference is therefore $1050 \times 13.6 \times \pi = 44,860$ km.
- ❖ Aryabhata also deduced that: "*The moon eclipses the sun, and the great shadow of the earth eclipses the moon.*"

➤ Varahamihira

- ❖ Varahamihira lived in Ujjain and was one of the nine jewels (Navaratnas) of the court of Chandragupta II.
- ❖ He wrote *Panchasiddhantaka*, the five treatises on astronomy (NOT astrology). It summarises five earlier astronomical treatises, namely the *Surya Siddhanta*, *Romaka Siddhanta*, *Paulisa Siddhanta*, *Vasishtha Siddhanta* and *Paitamaha Siddhantas*
- ❖ Varahamihira has done a valuable job of compilation of five astronomical theories, which were in use before Crist, and suryasiddhanta is one of them.
- ❖ This compiled book is known as 'Panchasiddhanta'.

➤ Bhaskaracharya

- ❖ Bhaskaracharya was one of the prominent Indian mathematician and astronomer, who wrote a book 'Siddhantshiromani'.
- ❖ In his book he has documented valuable ancient literature and given the references of many of the instruments used by the astronomers before him.
- ❖ Similarly he has documented the various methods for the use of these instruments.

➤ Pingala

- ❖ The Indian scholar Pingala (circa. 5th-2nd century BC) used binary numbers in the form of short and long syllables (the latter equal in length to two short syllables).
- ❖ This was very much similar to today's Morse code.
- ❖ The knowledge of binary numbers indicates his deep understanding of arithmetic. Binary representation has now become the basis of information

storage in terms of sequences of 0s and 1s in modern-day computers.

➤ Bhaskara

- ❖ Bhaskara (born 1114), who was from the Karnataka region, was an outstanding mathematician and astronomer. Amongst his mathematical contributions is the concept of differentials.
- ❖ He was the author of Siddhanta Shiromani, a book in four parts:
 - ✓ Lilavati on arithmetic
 - ✓ Bijaganita on algebra
 - ✓ Ganitadhyaya on astronomy
 - ✓ Goladhyaya on astronomy
- ❖ Bhaskara's epicyclic eccentric theories of planetary motions are more developed than in the earlier siddhantas.

➤ Madhava

- ❖ Madhava (c. 1340-1425) developed a procedure to determine the positions of the moon every 36 minutes.
- ❖ He also provided methods to estimate the motions of the planets.
- ❖ He gave power series expansions for trigonometric functions, and for π correct to eleven decimal places.

Sanskrit Literature in Early Medieval India

During early medieval period, there was a considerable development in the literature. However, the quality of the content in them was not of a high order. It was basically of general imitative and reproductive character.

➤ Shriharsha

- ❖ *Naishadhiyacharitam* of **Shriharsha** is the most outstanding epic of this period, written under the patronage of Gahadawala king Jayachandra of Kannauj.

➤ Kalhana

- ❖ *Rajatarangini* of Kalhana is unique as the only known attempt at true history in the whole of surviving Sanskrit literature. A few short poems were also written during this period.

➤ Jayadeva

- ❖ The *Gita-Govindam* of Jayadeva is known as the most musical song ever written in Sanskrit.