# HINDI and SANSKRIT LITERATURE

**HINDUISM and HINDU LITERATURE**

Hinduism is one of the oldest religions with no definite theories of its origin and starting point. Earliest literary and religio-philosphical works are in form of *Vedas* and other literature. There are four Vedas and each of them also has – *Samahitas, Brahmanas*, *Upnishadas* and *Araynakas* – as four parts.

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. **Smiriti** 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. *There is no distinct division between Shruti and Smriti. Both Shruti and Smriti can be represented as a*

*continuum, with some texts more canonical than others*. First among Smritis is Manu Smriti.

Three older Vedas excluding Atharveda are called as ‘*Trey*’. **Rigveda** contains many hymns and Gayatri

Mantra is one of them. In **Samaveda**, ‘Sama’ means melody and it contains the Rhythmic compilation of Hymns of Rigveda. ‘Yajus’ means ‘sacrificial formula’ and **Yajurveda** is the book of sacrificial and ritual prayers. It contains the rituals of the Yajnas. It ranks next in sanctity and importance to the Rigveda. It contains 1549 hymns which are meant to be sung at the soma sacrifice by a special class of Brahmans. **Atharvaveda** contains the magic spells, incorporates much of early traditions of healing and magic that are paralleled in other Indo-European literatures. It also mentions Dhanvantri

**Brahmvaidini** were the women during Vedic period who composed many hymns during Rig Vedic period. Among such women, some of the prominent were – Lopamudra, Ghosa, Maitreyi**.** Lopamudra was the wife of the sage Agastya. Maitreyi, (the wife of Yajnavalkya) is accredited with about ten hymns in Rig Veda.

as earliest medical person. Atharveda was not written by priestly class unlike other three Vedas.

The **Samahitas** contain hymns. There are *two primary versions or Samhitas* of the **Yajurveda** :

**Shukla**(white) and **Krishna**(black)

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** 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. They were studied and taught by men during their *Vanprastha ashrama.*

**Upanishads** are also 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. They are called Vedanta also because they were taught at the end to the disciples. The Sanskrit term Upanishad derives from *upa*

- (nearby), *ni* - (at the proper place, down) and *pad* (to sit) thus meaning – ‘sitting down near’, implying sitting near a teacher to receive instruction. The main motto of the Upanishads is ‘Knowledge Awards Salvation’. More than 200 Upnishads are known, of which the first dozen or so, the oldest and most important, are variously referred to as the principal, main (*mukhya*) or old Upanishads. Copilation of 108 Upnishadas is also called ‘*Muktika’*. All Upanishads have been passed down in oral tradition. First and the largest Upnishada is *Vrihat Aranyaka* which is a discourse between *Yajnavalyaka* and *Gargi* on philosophical aspects of Dharma. ‘***Aum*’** is contained in *Chandyuga* Upnishad. *Katha Upnishad* contains dialogue between *Yama* and *Nachiketa* and it is about basic questions regarding Atma and Parmatma. Many of the ideas of the Upanishads were later developed by the famous thinker *Shankaracharya*.

There are four basic components of **Hindu philosophy** – *Karma, Dharma, Soul and Parmatma*. Traditional Hindu life was governed by two fundamental principles – *Varnavyavastha* i.e theory of four

varnas and *Ashramavayavastha* i.e. four stages of life and the associated principles. Around the time

when Jainism and Buddhism were becoming popular, brahmins developed this system of ashramas.

Today, Hinduism can be broadly seen in two streams – orthodox and heterodox. ***Orthodox*** view believes that Vedas are the ultimate source of knowledge, failth and morality and they were not written by humans i.e. they are revealed. This is also known as ‘*Sanatan*’ view. ***Heterodox*** stream is more liberal and includes strands including ancient Lokayatta hilosophy to philosophy of Upnishadas, Sankhya, Yoga and Adwait.

Asvaghosha, Kalidasa, Shudraka, Bhasa, Bhavabhuti, Harsha, Visakhadatta and Mahendravikraman etc and their contributions have already been mentioned as a part of theatre tradition.

**Panini**, a 5th-6th century scholar, is known for his Sanskrit grammar, particularly for his formulation of the rules of Sanskrit morphology, syntax and semantics in the grammar known as *Ashtadhyayi*.

**Katyana** wrote *Vartika* which is a commentary on Ashtadhyayi.

**Patanjali** wrote *Mahabhasya* which is one of seminal works on Grammer. The Mahbhashya (great commentary) of Patanjali on the Ashtadhyaai of Panini is a major early exposition on Panini, along with Varttika by Katyayana. He is also compiler of *Yog Sutras*. He is also doyen of Yoga philosophy o Hinduism.

**Chanakya** (370–283 BCE) was a teacher to the first Maurya Emperor Chandragupta and generally considered to be the architect of his rise to power. Traditionally, Chanakya is also identified by the names Kautilya and Vishnugupta Sharma, who authored the ancient Indian political treatise called *Arthashastra* which was written by him while he was a teacher at Taxila.It is related to money and politics and contains 6000 shlokas in 15 parts. Neetishastra (which is also known as Chanakya Niti) is also attributed to Chanakya.

**Harisena** was a great poets and play writers of the Gupta period. He wrote poems praising the valor of Samudra Gupta. It is inscribed on Allahabad pillar as well.

**Gupta period** was also a golden period of Indian literature or rather a golden period of Sanskrit literature. Sanskrit literature from all the walks of life was produced during this time. Kalidasa emerged as the biggest dramatist and story writer. Aryabhatta – a mathematician and astronomer – wrote *Arya- bhattiya* and *Surya Siddhanta*. Varahmihir wrote *Jyotishsastra* and *Pancha-siddhantika* on astronomy. Vagabhatta – a Physician – wrote *Astangasangraha*. Vishnusharma – wrote *Panchatantra*, a collection of moral stories. Bhasa wrote one of the most celebrated plays *Svapnavasavadatta.* Vishakhadutta wrote *Mudra Rakshas* and *Devichandragupta* (on *Chandragupta-II and Dhruva Devi*). Shudraka wrote

*Mricchakatika*. Dandin wrote *Dasakumaracharita*. Nalanda also emerged as the first large scale university of the world during Gupta times.

**Bhartrhari** was a 5th century Sanskrit author who wrote Vakyapadiya , a treatise on Sanskrit Grammar and Satakatraya which is also known as Nitishatak and has 100 verses on philosophy.

**Bharvi,** a 6th century Sanskrit poet in Pallava kings court, is best known for his Mahakavya (epic), the *Kiratarjuniya* (Arjuna and the Mountain Man) is based upon an episode in Mahabharata. Kirat is Shiva who speaks to Arjuna in for form of a mountain dwelling hunter.

**Bhatti** was a Sanskrit poet from 7th century who is best known for *Bhattikavya* which is also known as

*Ravanavadha*.

**Dandin** was a 7th century Sanskrit poet whose main work was *Daskumarcharita* which depicts the adventures of 10 princes.

**Magha** was a 7th century **Sanskrit poet** at King Varmalata's court at Srimala, the-then capital of Gujarat. His epic poem *Shishupala Vadha*is based on the Mahabharata episode where the defiant king Shishupala is beheaded by Krishna's chakra. It is one of the 6 Sanskrit Mahakavyas. It was inspired by the works of Kalidasa, Bharavi and Dandin.

**Jayadeva** was a 12th century Sanskrit poet from Odisha. He is most known for his composition, the epic poem *Gita Govinda*, which depicts the divine love of Krishna – an avatar of Vishnu and his consort, Radha, and it is considered an important text in the development of Bhakti movement of Hinduism. It is also the finest poem of Sanskrit literature of this period, besides numerous works on different aspects of art and architecture, sculpture, iconography and related fields.

**Kalhana** was a 12th century Sanskrit poet in the kingdom of Kashmir. He used a variety of sources, including inscriptions, accounts and histories. *Rajtarangini* is his most celebrated work. It is said to be first major work of history in India. Kalhana was different from other raso writers in the sense that he probably didn't have the patronage of any ruler. That is why his work could rise above the petty nature of his contemporaries. *Unlike the writers of prashastis , he was often critical about rulers and their policies*. He writes in the *kavya* style in order to make it interesting to the reader. Though he ensures creativity in his writing yet he never loses sight of his main goal i.e. to write historical truths as seen by him. Thus he maintained his objectivity in most matters. He was writing in a very turbulent period. Harsha's reign had ended and there were lots of wars and struggles around. He wanted to write impartially so as to present facts before people and make them learn from their mistakes. He mentions his sources in detail. He used a variety of sources, including inscriptions, documents, eyewitness accounts and earlier histories, to write his account. He mentions the 11 scholars who gave him the family tree of Kashmir rulers. He mentions the legends, myths, folklore etc. wherever he had to rely on it. But his strongest point is he relies on inscriptions in the temples, land grant inscriptions etc. and mentions them clearly. His work is divided into 8 parts. First 3 cover history of more than 3000 years which mainly rely on Puranas and legends. His real historiography begins from 4th part and in 4th – 6th part, he covers the *Karkota* and *Utpal* rulers. For these parts he relies on inscriptions as well as Buddhist

texts. In 7th and 8th part he covers the Lohara dynasty. He writes that the feudal elements derive their strength from the vast amount of land they hold. He criticizes kayasthas and bureaucrats and accuses them of harboring treacherous intentions against the kings. He never paints anybody in full white or black and impartially tells us about his strengths as well as weaknesses. It says Harsha introduced a general dress in Kashmir of long coats. He gives us a whole lot of other information like geography, family trees of important people, economic activities like coin moulding etc.

**Somdeva** was also a Sanskrit scholar from Kashmir, he wrote *Katha Sarit Sagar*.

**Narayana** wrote Hitopadesha which is a collection of Sanskrit fables in prose and verse written in the 12th century C E. It is an independent treatment of the Panchatantra. It is meant as an exposition on statecraft (including the conduct of war and peace and the development of allies) but was produced in a format easily digestible for young princes. The author of Hitopadesha, Narayana, says that the main purpose of creating the Hitopadesha is to instruct young minds in a way that they learn the philosophy of life and are able to grow into responsible adults.

**Chand Bardai** wrote *Prithviraj Raso* which is an epic poem on the life of king Prithviraj Chauhan in Apbhramsa Hindi. It is supposed to be the first book in the Hindi language.

**Raso Literature** – It was called veer gatha phase earlier because the first literature found comprised almost exclusively of the writings of the court poets glorifying the bravery of their ruling masters in order to praise them. They often were full of exaggerations. Examples are Prithviraj Raso, Parmal Raso (Alha and Udal), Beesaldev Raso (love affair of Ajmer ruler Beesaldev and Malwa princess Rajmati). In addition to glorifying their bravery the poets also glorified their love affairs with beautiful princesses of the age. Their aim was not to present historical facts but to glorify their masters. By glorifying wars and feuds they played an important role in promoting regional rivalry and disturbed national unity. They were also a reflection of cherished ideals in the society i.e. bravery and love. Fighting wars was noble. The way they focus solely on the beauty of the princess while glorifying the love affairs of their masters tells us that women were treated merely as an object of consumption. Women were expected to perform *jauhar* and *sati*. They had no existence of their own. They are also a reflection of growth of regional dialects. Many of these works use a mixed form of regional Rajasthani dialects - a style often called pingle style.

During Mughal period also many Hindi literary works were done. Sur Sagar, Ram Charitamanas etc are prominent among the books written during Akbar’s time. Among the noted Hindu poets of this period were Kabir, Tulsidas, Surdas and Rahim.

# TAMIL LITERATRE

## SANGAM LITERATURE

Tamil as a language is known to exist since start of Christian era and hence the oldest of Dravidian languages. Sangam literature is the oldest literature of this language.

Sangam literature refers to a body of classical Tamil literature, mainly in form of poems, created between the years 600 BCE to 300 CE around Madurai (which is a Tamil word for Mathura) under Pandya rulers. It is called Sangam because it was composed at a collection of poets and writers. Tamil Sangams were academies, where Tamil poets and authors are said to have gathered periodically to publish their works.

It is believed that in all 3 Sangams took place. The poems belonging to the Sangam literature were composed by Dravidian Tamil poets, both men and women, from various professions and classes of society. They are secular in nature and of a very high quality. The Sangama literature is a collection of long and short poems composed by various poets in praise of numerous heroes and heroines.

Sangam poems mention the ***muvendar***. This is a Tamil word meaning *three chiefs*, used for the heads of three ruling families, the Cholas, Cheras, and Pandyas of 2300 years ago. Each of the three chiefs had two centres of power: one inland, and one on the coast. Of these six cities, two were very important: Puhar or Kaveripattinam, the port of the *Cholas*, and Madurai, the capital of the Pandyas. The chiefs *did not collect regular taxes*. Instead, they demanded and received gifts from the people.

Sangam Poems falls into two categories: the 'inner field' or *aham* and the 'outer field' or *puram*. The 'inner field' topics refer to personal or human aspects, such as love relationships, and are

dealt with in a metaphorical and abstract manner.

The 'outer field' topics discuss all other aspects of human experience such as heroism, valour, ethics, benevolence, philanthropy, social life, and customs.

Sangam literature mentions that Pandya rulers were wealthy and benefitted from trade with Roman Empire and have sent embassies to Roman king Augustus. Brahmins were influential and Vedic rituals were also performed by the King. Social inequalities were also very sharp during Sangam age. Rich lived in structure of brick and mortar and poor in thatched huts.

The contributions of Tamil saints like **Thiruvalluvar** who wrote ‘*Kural’* which has been translated into many languages are noteworthy. Thiruvallurar’s work ‘Kural’ is divided into three parts. The first part deals with the epics, the second part with polity and government and the third part with love.

Besides the Sangama texts, we have a text called ***Tolkkappiyam***, which deals with grammar and poetry. It is considered as fountainhead of all literary conventions in Tamil.

There are two other Tamil classics viz – ***Shilpadikaram*** and *Manimekalai*. These two were composed around the 3rd to 6th century AD. Shilpadikaram was written by *Ilango*. The nature of the book is non- religious, narrative and has a moralistic undertone. The story involves the three Tamil kingdoms of the ancient era, which were ruled by the Chola, Pandyan and Chera dynasties. It is considered as the brightest gem of Tamil literature and deals with a love story between Kannagi – an ideal devoted wife –

and Kovalan. Kovalan is married to Kannagi, but fell in love with Madhavi and later Madvi deserts him, but Kannagi accepted him. Later Kovalan was arrested on charges of theft by Pandyan king of Madurai and was hanged for this. Kannagi avenged her husband by putting the whole Madurai on fire and later commits suicide.

***Manimekalai*** epic was written by a grain merchant Sattanar of Madurai. Its story is a sequel to *Silapadikaram*, and tells the story of the conversion to Buddhism of the daughter of Kovalan and Madhavi. Manimekalai is the name of the daughter of Kovalan. The Manimekhalai is the only surviving Tamil Buddhist literary work of what once was an extensive literature. These epics throw light on the socio-economic life of Tamils from second century to 6th century CE.

In post Sangam Period, (the 6th to 12th century CE), the Tamil devotional poems written by Nayanars and Alvars herald the great Bhakti movement which engulfed the entire Indian sub-continent. During this period, ***Kambaramayanam*** and ***Periya Puranam*** were two Tamil literary classics.

Apart from these two great epics of tamil literature, there are three more works – ***Kuntalakeci*** by Nagakuthanar or *Nagasena* is a Buddhist religious work of 5th CE. **Civaka Cintamani** was written by a Jaina monk *Tirutakka Thevar* which is a Jainist religious work of 10th century. It narrates the romantic exploits of Jeevaka and throws light on arts of music and dance of the era. It is a treatise of the fourfold object of life and aim of literary work of virtue, wealth, pleasure and bliss. It is reputed to have been the model for Kamba-Ramayanam. ***Valayapathi*** is also a Jain religious work of 9th century.

Kamban wrote Kamba-Ramayanam in Chola period but it was not merely a translation of the Valmiki ramayna as the style, treatment of gender and even the narrative was varied according to the local tradition. Thus he treats Ravan in a much more sympathetic way than Valmiki.

# SCIENTIFIC LITERATURE and DEVELOPMENTS

Though India had made an early start in field of science, it couldn’t be carried forward because, science was later mixed with myths and superstition. For example, while we were a leader in medicine, later we started to believe that if we touch a corpse, we shall loose our caste.

## MATHEMATICS in INDIA

Earliest examples of acquaintance of Indians with maths are found in town planning of Harrapans which showed good knowledge of geometry. *Sulvasutra* or Shulbasutra – which refers to the texts related to the construction of fire altars – are perhaps the early socurce of science of mathematics in India. The four major sulvasutra are those composed by Baudhayana, Manava, Apastamba and Katyayana. The sulvasutras are part of the larger corpus of texts called the *Shrauta Sutras*, considered to be appendices to the Vedas. They are the only sources of knowledge of Indian mathematics from the Vedic period. Apart from Pythagoras theorem and value of Pi, other three important contributions of Indian mathematicians include – the notation system, the decimal system and the use of zero. The notations and the numerals were carried to the West by the Arabs. These numerals replaced the Roman numerals. Arabs called mathematics as ‘*Hindisat’* or Indian art.

**Budhyana’s** ‘*Budhyana Sulvasutra’* was the earliest work on mathematics in 6th century BCE which also mentions use of Pythagoras Theoram and use of Pi as a part of appendices to Vedas. His *Budhyana Sulvasutra* also mentions a ritual which included ‘squaring the circle’ i.e. converting a square of a given areas into a circle and vice-versa. These techniques were used to construct various forms of fire-altars for conducting *yajnas*, sacrificesand other rituals.

**Pingala** was a 2nd century BCE scholar who used binary numbers in the form of short and long syllables in his *Chhandahshastra*. It was quite similar to Morse Code which is the basis of computer industry today.

**Apstambha**, a mathematicianof 2nd century BCE gave the reference of concepts of acute, obtuse and right angles which were used in construction of fire altars in his work on sulvasutras.

**Aryabhatta** lived during Gupta era and in 6th century wrote *Aryabhattiya* (written at the age of 23 years) in which the concepts of mathematics as well as astronomy were used. It has four sections which deal with – methods of denoting big decimal numbers with alphabets, number theory, geometry, trigonometry and algebra and astronomy. There was also an astronomical observatory in Nalanda where Aryabhatta studied. He stated that *day and night were caused by the rotation of the earth* on its axis, even though it seems as if the sun is rising and setting everyday. He formulated area of a triangle and also discovered algebra. He also gave value of ‘π’ or pie which was much more accurate than that was given by Greeks. He gave decimal system in 5th century AD. Zero was discovered by Indians in 1st century BCE, however it is attributed to an unknown Indian. He also gave rule to find area of triangle leading to developments in field of geometry.

**Varahamihira** was an Indian astronomer, mathematician, and astrologer who lived in Ujjain in 6th century and wrote *Vrihatsamihta*. He is considered to be one of the nine jewels (Navaratnas) of the court of legendary ruler Vikramaditya (thought to be the Gupta emperor Chandragupta II Vikramaditya). He wrote *Brihatsamhita***.** He said that moon rotated around earth and earth around sun.

**Brahmgupta** in 7th century AD also wrote ‘*Brhmasapta Siddhantika*’ which was the first book which mentions zero as a number. He mentions many rules for the first time which govern the operations of Zero with other numbers including positive and negative numbers. He also mentions concepts of positive and negative numbers in this book and called negative numbers as ‘debt’ and positive numbers as ‘fortunes’. He also gave the solution of the general linear equation in Brahma Saptasiddhanta. He also contributed towards geometry as well, his most famous result in geometry is his formula for *cyclic quadrilaterals*.

**Bhaskara** (commonly called Bhaskara I to avoid confusion with the 12th century mathematician Bhaskara II or Bhaskaracharya) was a 7th-century Indian mathematician, who was apparently the first to write numbers in the Hindu decimal system with a circle for the zero, and who gave a unique rational approximation of the sine function in his commentary on Aryabhata's work– *Aryabhatiyabhasya*, written in 629 CE, is the oldest known prose work in Sanskrit on mathematics and astronomy. He also wrote two astronomical works in the line of Aryabhata's school, the *Mahabhaskariya* and the *Laghubhaskariya*. He is considered the most important scholar of Aryabhata's astronomical school. He and Brahmagupta are one of the most renowned Indian mathematicians who made considerable contributions to the study of fractions.

**Mahaviracharya** a Jain scholar wrote *GanitSarsangrah* on arithmatics in 9th century AD. It is the first textbook on arithmetic in present day form. The current method of solving Least common Multiple (LCM) of given numbers was also described by him, long before John Napier introduced it to the world.

**Sridhara** in 10th century CEwrote *Ganitasara* which deals with multiplication, division, numbers, cubes, square roots, mensuration and so on.

**Bhaskaracharya** was a 12th century Kannadda mathematician who wrote *Siddhantshiromani* which is is divided into four sections – *Lilavati* (Arithmetic), *Beejaganit* (Algebra), *Goladhyaya* (Sphere) and *Grahaganit* (mathematics of planets). He has been called the greatest mathematician of medieval India. He introduced cyclic method or *Chakrawat Method*to solve algebraic equations using differential calculus. This method was rediscovered six centuries later by European mathematicians, who called it inverse cycle. He also calculated the time taken by earth to revolve around Sun. Yasti Yantra was a unique instrument developed by him which was used to measure the height of trees, mountains etc.

**Madhava** a 14th century mathematician 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 pi correct to eleven decimal places.

## ASTRONOMY in INDIA

**Aryabhatta** in 500 AD wrote *Aryabhattiya* in which the concepts of astronomy were used in 2 out of 4 sections. He said that earth is round and revolves around its own axis. He also gave methods of calculation of movement of planets and gave a method of calculating eclipses. He made a radical departure from Vedic notions about earth and solar system and gave astronomy a more rational and scientific outlook.

Similarly, **Varahmihira** made similar observations as those made by Aryabhatta and he classified astronomy into five branches. Varahamihira's main work is the book *Pancha-Siddhantika* on the Five Astronomical Canons. It summarises five earlier astronomical treatises, namely the Surya Siddhanta, Romaka Siddhanta, Paulisa Siddhanta, Vasishtha Siddhanta and Paitamaha Siddhantas.

An observatory was established at Nalanda and later Ferozshah Tuglaq also established an observatory at Delhi. Similarly, Feroz Shah Bahamani established an obersvatory near Daulatabad. Sawai Jaisingh - II also established 5 astronomical observatories – Jantar Mantar at Delhi is one of them.

## MEDICAL SCIENCE in INDIA

First mention of medicines and illnesses is made in *Atharveda* which mentions various diseases like cough, diarrhea, leprosy etc and their causes in form of spells, evils etc. It also mentions their remedy in form of magical spells, hymns and charms.

The basic conception of Indian medicine is that fundamental fluids like – *Vat, Pitta, Kaff* (wind, blood, mucus) play an important role and are associated with *gunas* or qualities like virtue, passion and dullness ad balance between them keeps human body healthy.

Buddhist monks used to work as doctors as well and Ashoka established free hospitals.

*Atreya Samhita* is considered as the first work on Ayurveda in India.

**Sushruta** is called ‘father of surgery’ and he is also known to have performed plastic surgery and he wrote *Shushrutsamahita*. Exact date of this work is not known and it is speculated to have been done in 1000 BCE, much before work of Charaka.

Charaksamhita is one of the earliest works of 3rd century BCE by **Charak** who was a court doctor of Kanishka. He mentions mention use of herbs and plants for medicinal urpose and is called ‘father of Ayurveda’.

**Madhava**, **Vagbhatta** and **Jeevak** were other noted ancient ayurvedic practitioners.

Various other schools evolved later – Raschikitsa recommended use of mineral medicines, Unani (Greek) system was introduced by Muslims in 11th century AD.