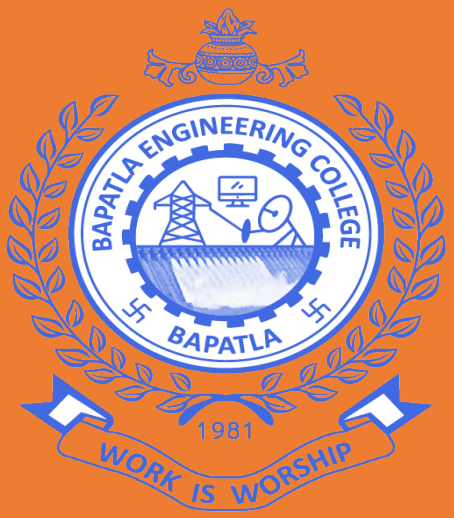

INDIAN TRADITIONAL KNOWLEDGE

III B.Tech V Semester (Code: 20IT506)

Department of IT

orical Background: TKS During the Pre-colonial and Colonial Period

Unit-1 Lecture-1

itional knowledge (TK) is knowledge, know-how, skills and practices that are developed, susta
ed on from generation to generation within a community, often forming part of its cultural or
ity

is a knowledge-based society, where the social foundation ultimately rests on knowledge.

nall minority, who enjoys greater access to the processes of knowledge creation, exchange and ap
the rest, dominates it.

itional knowledge systems were discriminatory (based on caste, creed (religion), gender).

discriminatory traditional knowledge systems were legitimised(legalized) and fortified under
utional frameworks, culture and practices. (jajmani or Yajman systems)

pational skills passed on from one generation to another through strict monopolistic control
dity and caste hierarchy.

wledge-access discrimination (e.g. Ekalavya)

orical Background: TKS During the Pre-colonial and Colonial Period

Unit-1 Lecture-1

origin of Traditional Knowledge Systems can be traced back to 2 million years, when Homo habi
ng his tools and interacting with nature.

erent people have contributed to different branches of science and technology, involving interactive
ss cultures separated by large distances.

extent of global trade and researchers are properly recognizing cultural migration across large distar

ory of science as commonly taught, appears to be Eurocentric.

s two phases: It starts with Greek and Roman civilizations, the ***Classical Age of the Western world***.
it skips many centuries to the Enlightenment period around 1500. Skipping ***European Dark***
een, neglecting the influence of India.

orical Background: TKS During the Pre-colonial and Colonial Period

Unit-1 Lecture-1

European Dark Ages is presumed to be dark worldwide, when in fact, the rest of the worl eloping) with innovation and prosperity while Europe was at the peripheries until the conquest rica in 1492.

a's contributions to global knowledge got highlighted by Joseph Needham.

y discoveries and innovations of India, as acknowledged by the Arab translators themselves, cted as being of Arab origin, when in fact, the Arabs often retransmitted what they had learnt from I rope.

vast and significant contributions made by the Indian sub-continent have been widely ignored.

British colonizers could never accept the fact that Indians were highly civilized even in the third m when the British were still in a barbarian stage.

orical Background: TKS During the Pre-colonial and Colonial Period

Unit-1 Lecture-1

sh Indologists did not study Traditional Knowledge System or TKS, except to quietly documen
ms competing with their own, and to facilitate the transfer of technology into Britain's Industrial Re

t was found valuable was quickly appropriated and its Indian manufacturers were forced out of busi
vas in many instances justified as civilizing them.

nwhile, a new history of India was fabricated to ensure that present and future generations of
nized people would believe in the inherent inferiority of their own traditional knowledge an
riority of the colonizers' modern' knowledge.

has been called Macaulayism, named after Lord Macaulay who successfully championed this st
in most emphatically starting in the 1830s.

nt Monuments

neral, British attitude towards India's historic monuments was negative, except for Curzon.

es of gardens, tombs (samadhi) and palaces that once adorned(decorated) the suburbs of Sikandra
sold out or auctioned.

cs of the glorious age of the Mughals were either destroyed or converted beyond recognition.

of 270 beautiful monuments which existed at Agra alone, before its capture by Lake in 1803, hardly
ved."

ble reliefs were torn down, gardens were trampled (crushed).

kingly, even the Taj Mahal was not spared.

minarets (thin tower) became a popular site for suicide leaps, and the mosque on either side of the
d out as bungalows to honeymooners.

ral of Shahjahan's pavilions in the Red Fort at Delhi were indeed stripped to the brick, and the m
ped off to England.

s to dismantle the Taj Mahal were in place, and wrecking machinery was moved into the garden gro

as the demolition work was to begin, news from London indicated that the first auction had n
ess, and that all further sales were cancelled.

uld not be worth the money to tear down the Taj Mahal.

d the British Imperialism

aps the most important aspect of colonial rule was the transfer of wealth from India to Britain.

s pioneering book, India Today, Rajni Palme Dutt conclusively demonstrates how vital this w
strial Revolution in Britain.

ral patents that had remained unfunded suddenly found industrial sponsors once the taxes from Ind
g in.

out capital from India, British banks would have found it impossible to fund the modernization
ook place in the 18th and 19th centuries.

eral of these patents, particularly those concerned with the textile industry relied on pre-industrial te
cted in the sub-continent.

act, many of the earliest textile machines in Britain were unable to match the complexity and fine
ning and weaving machines of Dacca.)

e Eurocentric authors have attempted to deny any such linkage.

Viceroy of British India in 1894 was quite unequivocal, "India is the pivot of our Empire.. If th
any other part of its Dominion we can survive, but if we lose India the sun of our Empire will have

as the transfer of wealth through unprecedented levels of taxation on Indians of virtually all cla
ed the great "Industrial Revolution" and laid the ground for "modernization" in Britain.

rade

e early 1800s imports of Indian cotton and silk goods faced duties of 70-80%. British imports faced
er cent.

result, British imports of cotton manufactures into India increased by a factor of 50, and India
ped to one-fourth.

niliar trend was noted in silk goods, woollens, iron, pottery, glassware and paper.

result, millions of ruined artisans and craftsmen, spinners, weavers, potters, smelters and sm
ered jobless and had to become landless agricultural workers.

rialist Biases

ain was not the only beneficiary of colonial rule.

ish trade regulations even as they discriminated against Indian bu
erests created a favourable trading environment for other imperial pow

1939, only 25 per cent of Indian imports came from Britain, 25 pe
ne from Japan, the US and Germany. Canada and Australia contr
ther 8 per cent.

he period immediately before independence, the process of "globali
s already taking shape. But none of this growth trickled down to India.

he last half of 19th century, India's income fell by 50 per cent. In th
rs prior to independence, the Indian economy was literally stag
erienced zero growth.

ecame difficult for Europeans to ignore the massive archaeological ev
lassical Indian science and technology.

ortunately, since independence there has not been much improvem
h distortions of history, and this has continued to negatively impa
lerstanding and appreciation of TKS.

ny in India's intellectual elite continue to promote the notion tha
onial India was feudalistic, pre-rational, and by implication in need of
aded for its own benefit.

judice against TKS still persists in contemporary society.

n after independence, many British laws against TKS have continued
ugh their original intent was to destroy India's massive domestic in
foreign trade and to replace them with Britain's Industrial Revolution.

s significant to note that today less than 10% of India's labor works
ganized sector', namely as employees of a company.

remaining 90% are individual freelancers, contract laborers,
repreneurs, and so on, many of which still practice their traditional tra

wever, given the perpetuation of colonial laws that render much o
rk illegal, they are highly vulnerable to all sorts of exploitation, corru
abuse.

descendants of India's traditional knowledge workers, who built m
es, technologies, and dominated world trade for centuries, are
egitimize in their own country under a democratic government.

ny of today's poor jatis, such as textile, masonry, and metal workers, v
time the guilds that supplied the world with so many and varied inc
ns.

s important to note that amongst all the conquered and col
lizations of the Old World, India is unique in the following respect:

wealth was industrial and created by its workers' ingenuity and labor.

all other instances, such as the Native Americans, the plunder l
onizers was mainly of land, gold and other natural assets.

in India's case, the colonizers had a windfall of extraordinary profit m
m control of India's exports, taxation of India's economic productio
ntually the transfer of technology and production to the colonizer's ho

s comprised the immense transfer of wealth out of India.

m being the world's major exporting economy (along with China), Inc
uced to an importer of goods;

m being the source of much of the economic capital that funded B
ustrial Revolution, it became one of the biggest debtor nations;

m its envied status as the wealthiest nation, it became a land synon
n poverty.

m the nation with a large number of prestigious centers of higher edu
t attracted the cream of foreign students from Eurasia, it became th
n the highest number of illiterate persons.

s remains a major untold story. The education system subversion of
in its history and social studies curricula is major factor for the stereo
out India.

ialism and Cultural Imperialism

o centuries of colonial rule have also had strong impact in the cultur
ucational arena.

h colonial-influence thinking also dominates the mindset of the ang
ian intelligentsia who mock at ideas of economic and cultural self-relia

these anglophiles (admirer of Britain), anything Western (or ar
roved by the West) to be embraced regardless of its ultimate utility to
independent of how exploitative the terms of the trade might be.

h decisions ought to be taken in the general national interest and
yed by an ideological orientation that stems from colonized mindset.

ile India was often a source of admiration (or grudging envy) pr
nization, the British victory in India led to a sea change in how India
e viewed and characterized in the West.

only was India's physical wealth expropriated by colonization, W
ial scientists, philosophers and historians attempted to do the same
ural and intellectual space.

hin such discriminatory framework, however, TKS did provide the nec
security and popular coping mechanisms vis-à-vis the natural and
nomic environment.

2-Indian Traditional Knowledge System

Unit-1 Lecture-4

ere is one place on the face of this Earth where all the dreams of living men have found a home from
est days when Man began the dream of existence, it is India --Romain Rolland, French Philosoph
).

nan communities have always generated, refined and passed on knowledge from generation to gener

"traditional knowledge" is often an important part of their cultural identities.

itional knowledge has played, and still plays, a vital role in the daily lives of the vast majority of peo

itional knowledge is essential to the food security and health of millions of people in the developing

eveloping countries, up to 80% of the population depend on traditional medicines to help m
hcare needs.

dition, knowledge of the healing properties of plants has been the source of many modern medicine

use and continuous development by local farmers of plant varieties and the sharing and diffusion
ties and the knowledge associated with them play an essential role in agricultural systems in de
tries, like India.

Traditional Knowledge Systems in India, essentially the **desi (the Lesser)** tradition of Indian sci
ly oral, systematized, undocumented and under imminent danger of getting irretrievably lost u
ught of globalisation and Western culture.

2-Indian Traditional Knowledge System

Unit-1 Lecture-4

body of knowledge is also part of the great heritage of humankind, which needs to be p
mented, and used for benefit of the local possessors of such knowledge, their region and also hu
.

ing and Ship Building

participated in the earliest known ocean-based trading systems.

known to scholars but not to the general public that Vasco da Gama's ships were captained by a
r.

n of Europe's discovery' of navigation was in fact an appropriation of pre existing navigation in t
n, that had been a thriving trade system for centuries before Europeans 'discovered' it.

e of the world's largest and most sophisticated ships were built in India and China.

compass and other navigation tools were already in use at the time. (“Nav' is the Sanskrit word for
e root word in 'navigation', and in 'navy', although etymology (derivation of word), is not a reliable
n.)

r Harvesting Systems

ntists estimate that there were 1.3 million man-made water lakes and ponds across India, some a
square miles.

e are now being rediscovered using satellite imagery. These enabled most of the rainwater to be
used for irrigation, drinking, etc. till the following year's rainfall.

ge organizations managed these resources, but this decentralized management was dismantled d
nial period, when tax collection, cash expropriation (taking away), and legal enforcements be
ary function of the new governance appointed by the British.

ntly, thousands of these 'talabs' have been restored, and this has resulted in a re-emergence of
r year round in many places. (This is a very different approach compared to the massive modern d
e name of progress that have devastated the lives of millions.)

2-Indian Traditional Knowledge System
Unit-1 Lecture-4

t Management

y interesting findings have recently come out about the way forests and trees were managed by each

reful method applied to harvest medicines, firewood, and building material in accordance wit
wal rates.

e is now a database being built of these 'sacred groves' across India.

n, it's a story of an economic asset falling into disuse and abuse because of dismantling the local go
uprooting respect for traditional systems in general.

sive logging by the British to export India's timber to fund the two world wars and other civilizing
e empire are never mentioned when scholars try to explain India's current ecological disasters.

2-Indian Traditional Knowledge System
Unit-1 Lecture-4

ocal population had been quite sophisticated in managing their ecology until they were dis-empowe

Techniques

's agricultural production was historically large and sustained a huge population compared to othe
orld.

luses were stored for use in a drought year.

the British turned this industry into a cash cow, exporting massive amounts of harvests eve
ages, so as to maximize the cash expropriation.

caused tens of millions to die of starvation while at the same time India's food production was ex
ecedented rates to generate cash.

, traditional non-chemical based pesticides have been recently revived in India with excellen
cing Union Carbide's products in certain markets.

2-Indian Traditional Knowledge System
Unit-1 Lecture-5

nal Medicine

is now a well-known and respected field.

n re-legitimizing of Indian medicine has already been done, thanks to many Western labs and scient

y multinationals no longer denigrate traditional medicine and have in fact been trying to secure p
n medicine without acknowledging the source.

atics, Logic and Linguistics

des other sciences, Indians developed advanced math.

ding the concept of zero, the base-ten decimal system now in use worldwide, and many
nometry and algebra formulae.

made several astronomical discoveries.

2-Indian Traditional Knowledge System
Unit-1 Lecture-5

rse schools of logic and philosophy proliferated.

's **Panini** is acknowledged as the founder of linguistics, and his Sanskrit grammar is still the most ophisticated of any language in the world.

e were numerous other indigenous Indian industries.

's manufactured goods were highly prized around the world.

nust evaluate the historical importance of these TKS based on their economic value for their time, w rtance could be compared to today's high tech industry.

's own English educated elite should be made aware of this to shed their Macaulayite inferiority co

~~development, refinement and extension of TKS offer potential benefits capable of resolving so uities in modern societies worldwide.~~

2-Indian Traditional Knowledge System
Unit-1 Lecture-5

ence

des the above, another category of Traditional Knowledge Systems is non-literate folk science.

ern science as a whole has condemned and ignored anything that it did not either appropriate or de
g magic and superstition.

ever, in countries such as India that have cultural continuity, ancient traditions survive with a rich
science.

orth America and Australia, where original populations have been more than decimated, such con
radition was disrupted.

estern nations with large colonies in the Old and New Worlds, such knowledge systems were lool
.

his prejudice that subverts the importance of folk science, and ridicules it as superstition.

2-Indian Traditional Knowledge System

Unit-1 Lecture-5

process of contrasting Western science with folk knowledge systems extends to the demar
vledge systems in different categories of **science** versus **religion**, **rational** versus **magical**, and so or

we need to insist that these Western imposed hegemonic (dominant) categories are contrived (de
ed) and artificial.

ern science seldom realized that non-literate folk science preserves the wisdom gained through mi
rience, direct observation, and has been transmitted by word of mouth.

lopment projects based solely on new technologies are pushing the Traditional Knowledge System
ction.

traditional wisdom of humankind needs to be preserved and used for our survival.

ernized 'experts' go to non-literate cultures assuming them to be knowledge blanks' which ne
rammed with modern science and technology.

krishnan, the renowned ecologist, humbly admitted that the ecological management practiced tod
s of the northeastern states of India is far superior to anything he could teach them.

od example in this regard is the alder (Alnus nepalensis), which has been cultivated in the jhum
vation) fields by the Khonoma farmers in Nagaland for centuries.

s multiple usages for the farmers, since it is a nitrogen-fixing tree and helps to retain the soil fertilit

aves are used as fodder and fertilizer, and it is also utilized as timber.

rtunately, many plants, which the tribes traditionally cultivated for specific benefits, have now dis
e name of progress.

2-Indian Traditional Knowledge System

Unit-1 Lecture-5

vast majority of modern medicine, patented by Western pharmaceutical firms are based on tropical p

Western firms scout tropical societies, seek out established 'folk remedies, and subject these to tific legitimizing'.

any cases, patents owned by multinationals are largely for isolating the active ingredients in a lab, a gh rigorous protocols of testing and patent filing.

e this is an important and expensive task, and deserves credit, these are seldom-independent di scratch.

r has the society that has truly discovered it through centuries of empirical testing and trial ved any recognition, much less any share of royalty.

2-Indian Traditional Knowledge System

Unit-1 Lecture-6

's recent fights in international courts, over Western patents of its traditional intellectual pr
ulture and medicine, have brought much needed publicity for this arena.

n Scott writes: "With the upsurge of multidisciplinary interest in traditional ecological knowledge',

odels explicitly held by indigenous people in areas as diverse as **forestry, fisheries, and ography** are being paid increasing attention by Western science specialists.

ney have, in some cases established extremely productive long-term dialogues with local experts.

ne idea that local experts are often better informed than their Western peers is at last receiving s
knowledgment beyond the boundaries of anthropology (study of human societies and cultures)."

2-Indian Traditional Knowledge System

Unit-1 Lecture-6

n too many cases, Western scholars reduce India's experts to 'native informants destined to live b
ceiling (barrier):

he pandit as native informant to the Western Sanskritist;

he poor woman in Rajasthan as native informant to the Western feminist seeking to cure her of her t

he herbal farmer as native informant to the Western pharmaceutical firm appropriating medicines fo
c.

ven their poverty in modern times, these 'native informants' dish out what the Western scholar e
ar in order to fit his/her model.

return they receive gifts, rewards, compensation, recognition, and even trips and visas in many cas

ly have Western scholars acknowledged India's knowledge bearers as fellow scientists and equal pa
uthors or as co-panelists.

competitive obsession to make 'original' discoveries and to put one's name on publications has ex
e worse) the tendency to appropriate (taking) with one hand, while denigrating (belittle) the so
hand so as to hide the plagiarism.

ave referred to this as **'academic arson'**.

Knowledge Transmitters

ribal Oraons (to roam) in remote areas of Jharkhand have doctors called 'Pahan', in which they se
a sort of trance.

Pahan then helps sort out problems, provides remedies for ailments, resolves social conflicts of t
ty, etc.

could dismiss this as superstition; but this is also considered a traditional method of rea
nscious. Does the Pahan use his spiritual powers to reach and tap the unconscious region of the m
ns?

s propounded by Vaclav Havel,

d these rituals represent the attempts of ancient humans to come to terms with the unknown, tional, and the unconscious parts of our beings?

ere these devices useful to invoke lost memories of the ancient past?

are, therefore, not willing to dismiss Pahan as some mumbo-jumbo, but a phenomenon worth stigation.

should be an important scientific research connecting Traditional Knowledge Systems to Inner Scie

cally, from Jung onwards, many Westerners have studied and appropriated these traditional 'inner med and repackaged them.

nwhile, the original discoverers and practitioners have been dismissed as primitive societies awaitin ernization.

2-Indian Traditional Knowledge System

Unit-1 Lecture-6

Israelis have been very successful in rediscovering many lost technologies relevant to their environ
re by investigating their ancient myths and traditions.

ugh this, they have become pioneers in many processes of economic value that conventional
nology lacks.

work aims to highlight ancient India's material contribution to the contemporary world and nega
e as a land of philosophers, snake-charmers, sages, seers, hermits and philosophers or Sadhus,
s and Gurus as they are called.

though spiritual philosophies did flower in India, they were not the only contribution of India
zation.

very difficult for India to throw away its spiritual tag because India has witnessed the efflore
lhism, which had the greatest impact world over.

2-Indian Traditional Knowledge System

Unit-1 Lecture-6

des, India is considered to be the birthplace of non-temporal values and attitudes like renu
tation, the physico-psychic discipline of Yoga, the concepts of non-violence (Ahimsa).

have few examples of spiritual movements like Ramakrishna Mission, ISKCON (International So
hna Consciousness), Chinmaya Mission, Osho (Rajneesh), etc.

ch originated in India and later assumed international status.

ever, most recently, the global popularity of Yoga Guru Swami Ramdev is a paradigm shift.

dev popularity is due to his effort to propagate Yoga (especially Pranayama yogic exercise) as an a
cine among the masses not only in India but the world over.

ome extent, Swami Ramdev's popularity, directly highlights ancient Indian wisdom in the field of
being.

2-Indian Traditional Knowledge System

Unit-1 Lecture-7

ent India's material contribution to the contemporary world gets reflected in various instances,
he concept of zero

he technique of algebra
igonometry
oduction of various types of worldly goods like perfumes, dyes, sugar, cotton (muslin) cloth, etc.
haraka and Sushruta are supposed to be world's one of the earliest Physician and Surgeon, respectiv
dian had considerable idea of various scientific phenomena like the concepts of atom and relativity
he principle of magnetism, the herbal system of medicine, the technique of alchemy (chemistry,
ansformation,etc..), smelting of metals etc..,

2-Indian Traditional Knowledge System

Unit-1 Lecture-7

hould also acknowledge the fact that in the later phase, Indian material advancement got stagnated
shadowed by the Western world.

n antiquity when with the exception of Greece and Rome, the West constituted the under-develop
had attained a high level of material culture.

ch was comparable with the civilizations of Egypt and Mesopotamia.

o the end of the first millennium, India was way ahead of the developed countries of today.

in our history the inhabitants of this country have achievements to their credit.

country today being painted as a borrower of technology, expertise, commodities, etc. from the c
, makes it doubly difficult for us to lay claim to our superiority in earlier times.

2-Indian Traditional Knowledge System
Unit-1 Lecture-7

ally, India has amongst the best cases for successful revival of Traditional Knowledge System:

a rich heritage still intact in this area.

s the largest documented ancient literature relevant to TKS.

s the intellectual resources to appreciate this and to implement this revival, provided the Macaulayi
ks could be shaken up through re-education of its governing elite.

s dire needs to diversify beyond dependence solely upon the new panacea (remedy for al
alization and Westernization.

scientific heritage, besides its philosophical and cultural legacy, needs to be properly understood.

aim is not inspired by chauvinism (aggressive patriotism), but to understand the genius of Indian ci
r.

2-Indian Traditional Knowledge System
Unit-1 Lecture-7

would overhaul the current assessment of India's potential.

o be emphasized to scholars and educators that TKS should be included, especially India's achiever
ions to world science that have been very significant but unappreciated.

e Traditional Knowledge Systems in economic planning, because they are eco-friendly, sustainab
n capital intensive, and more available to the masses.

should be used in parallel with the Westernized 'globalization', as the two should co-exist and ea
ed based on its merits.

have to study, preserve, and revive the Traditional Knowledge Systems for the economic betterme
d in a holistic (whole/over all) manner.

's scientific heritage needs to be brought to the attention of the educated world, so that we can re
centric History.

s goal requires generations of new research in these fields, compila
ng data, and dissemination through books, seminars, websites, a
s, etc.

3-Traditional Medicine
Unit-1 Lecture-8

great teaching of the Vedas, there is no touch of sectarianism. It is
limes and nationalities and is the royal road for the attainment of the
edge. -Thoreau, American Thinker

edical Science was one area where surprising advances had been m
ient India.

cifically these advances got manifested in the Ayurveda science,
gery, yoga, etc.

eda

dually accumulated practical and systematic medical knowledge in I
ed Ayurveda.

ity of system: Medicinal knowledge gained over trial and erro
nds of years in India and Central Asia/South-East Asia has been system
our thousand years ago in a system of medicine called Ayurveda.

3-Traditional Medicine
Unit-1 Lecture-8

re is a refreshing lack of mumbo-jumbo mystery mongering, and in
es modern techniques confirms the genuineness of the claims of Ayu
tors.

ortunately, fakes and quacks out to make a fast buck distort the teachi

aning: Ayurveda is made up of two Sanskrit words: **Ayu** which **mea**
Veda which **means the knowledge** of.

know about life is Ayurveda.

wever, to fully comprehend the vast scope of Ayurveda let us first
u" or life.

ording to the ancient Ayurvedic scholar Charaka, **"ayu"** is comprised
ential **parts**. The combination of **mind, body, senses and the soul.**

3-Traditional Medicine
Unit-1 Lecture-8

e Definition

rveda is a holistic system of medicine from India that uses a constitu
del.

aim is to provide guidance regarding food and lifestyle so that healthy
stay healthy and folks with health challenges can improve their health

re are several aspects to Ayurveda that are quite unique:

recommendations will often be different for each person regarding
ds and which lifestyle they should follow in order to be completely hea

s is due to its use of a constitutional model.

rything in Ayurveda is validated by observation, inquiry, direct exami
owledge derived from the ancient texts.

nderstands that there are energetic forces that influence nature and l
. These forces are called the **Tridoshas**.

3-Traditional Medicine
Unit-1 Lecture-8

ause Ayurveda sees a strong connection between the mind and the b
mount of information is available regarding this relationship.

origins of this system of course are lost in time.

egend it is said to have been taught by the creator, Brahma, to the Pr
sha, one of the lords of the animals.

taught it in turn to the divine twins called the Aswins. These Aswins a
venly healers.

y taught Indra, the chief of the shining ones. The personages men
e deities of early Vedic times.

nvantari is the name of the physician of the Gods.

rveda is the name, which the ancient Indians gave to the science of lif

3-Traditional Medicine
Unit-1 Lecture-8

such, Ayurveda means the science, by the knowledge of which life
longed or its nature can be understood.

re are four sacred books of India, eg Rigveda, Samveda, Yajurved
arvaveda. These Vedas are believed to be not composed by man bu
e by the Gods to sages or they were revealed to the sages.

rveda is a sub-section or Upanga of Atharvaveda.

d Divodasa Dhanvantari to Sushruta, Pauskalavata, Aurabha, Vaitarn
ers revealed the origin of Ayurveda.

usruta-Samhita Lord Dhanvantari is referred to as master of Salya Ta
or surgery.

d Dhanvantari claims to have received the knowledge of Ayurveda
ra, the King of Gods.

3-Traditional Medicine
Unit-1 Lecture-8

usruta-Samhita the origin of medical science is discrete as follows:

nvantari, the King of Banares or Kashi, sitting in his hermitage, encir
red sages.

ruta addressed Lord Dhanvantari and said, "We are sorry to se
icted by diseases.

wish to learn Ayurveda from you cure diseases of these pleasure-s
n, to protect our own bodies, and for the general good of mankind.
thou teach us this Science of Life."

d Dhanvantari replied, "You are qualified and fit to receive the instruct
rveda."

hma composed Ayurveda in one hundred thousand slokas and a tho
pters.

3-Traditional Medicine
Unit-1 Lecture-8

after considering the short span of life and the limited intelligent qu
normal human beings, Lord Dhanvantari divided Ayurveda into
umes, e.g.

a, cikitsa (Medicine); Kumarabhrtya (Pediatrics); Rasayana tantra (Ger
alth and care of old people)); Salya (Surgery); Salakya (Diseases of r
, ear, nose, throat: ophthalmology, ENT, surgery); Agada tantra (Fo
dicine); Bhutavidya and Vajikarana tantra (Science related to sex).

d Dhanvantari taught the science of medicine as well as the surg
hruta. It largely contains facts, knowledge theories and analogy.

all the branches of medicine, science of surgery is the most useful.
ause by its help we can gain our objects soon and it treats of the pr
s of surgical instruments.

d Divodasa Dhanvantari revealed the art of healing to well-edu
lified but enthusiastic students.

3-Traditional Medicine
Unit-1 Lecture-8

n today, we always divide the art of healing into sub-sections like An
siology, Pathology, Forensic Medicine, Surgery, Medicine, Ped
iatrics(health and care of old people), etc.

such the different eight sections marshalled and carved out b
anvantari about 600 B.C. still remain up even today to a large
paralleled, unequivocal and unchallenged.

n today, in India, Diwali festival inaugurates with remembrance c
anvantari.

such, during dusk time, a lamp pointing toward North by Northeast
entrance of the doorstep.

h is the welcome to Lord Dhanvantari to bestow on all for the health a
ppiness in ensuing life.

3-Traditional Medicine
Unit-1 Lecture-8

he Rig Veda, over 60 preparations were mentioned that could be u
st an individual in overcoming various ailments.

Rig Veda was written over 6,000 years ago but really Ayurveda ha
und even longer than that.

rveda is more than just a medical system. It is a Science of Life.

are all part and parcel of nature. Just as the animals and plants
mony with nature and utilize the Laws of Nature to create healt
ance within their beings, we, too, adhere to these very same principles

fair to say that Ayurveda is a system that helps maintain health in a
using the inherent principles of nature to bring the individual bac
ilibrium with their true self.

ssence Ayurveda has been in existence since the beginning of time b
ure's laws have always governed us.

3-Traditional Medicine
Unit-1 Lecture-8

ore the advent of writing, the ancient wisdom of healing, preventic
gevity was a part of the spiritual tradition of a universal religion.

dical knowledge from all areas of the world gathered in India, ar
ous **sage Vyasa**, put into writing the complete knowledge of Ayu
ng with the more directly spiritual insights of ethics, virtue ar
lization.

se revelations were transcribed from the oral tradition into book
erspersed with the other aspects of life and spirituality.

re were originally four main books of spirituality, which included,
er topics, health, astrology, spiritual business, government, army, poet
ical living.

se books are known as the **Vedas; Rig, Sama, Yajur and Atharva**.

3-Traditional Medicine
Unit-1 Lecture-8

rveda was used in conjunction with Vedic astrology (Jyotish-inner light

ater dates, Ayurveda was organized into its own compact system of
considered an auxiliary branch of the Vedas, called an Upaveda (limb
a).

ause, it dealt with the healing aspects of spirituality, and not c
ussing spiritual development.

se authors took the passages related to Ayurveda from the various
made separate books, dealing only with Ayurveda.

ong the Rig Veda's 10,572 hymns, are found discussions of the three
u, Pitta and Kapha; organ transplants, and artificial limbs, the use of h
l the diseases of the mind and body and to foster longevity.

hin the Atharva Veda's 5,977 hymns, are discussions of anatomy, physi
surgery.

3-Traditional Medicine
Unit-1 Lecture-8

und 1500 B.C., Ayurveda was delineated into eight specific branc
dicine.

re were two main schools of Ayurveda at that time, **Atreya-the sch**
sicians; and **Dhanvantari—the school of surgeons**.

se two schools made Ayurveda a more scientifically verifiabl
sifiable medical system.

ough research and testing, they dispelled the doubts of the more pr
scientific minded, removing the aura of mystery that surrounde
cept of Divine revelation.

sequently, Ayurveda grew into a respected and widely used syst
ling in India.

ple from numerous countries came to Indian Ayurvedic schools to
ut this world medicine-in its completeness.

3-Traditional Medicine
Unit-1 Lecture-9

nese, Tibetans, Greeks, Romans, Egyptians, Afghanistanis, Persian re travelled to learn the complete wisdom and bring it back to the ntries.

re are two main re-organizers of Ayurveda whose works still exist ay-**Charak** and **Sushrut**.

third major treatise is called the **Ashtanga Hridaya**, which is a c sion of the works of Charak and Sushrut.

se three books are believed to be over 1,200 years old, still conta ginal and complete knowledge of this Ayurvedic world medicine rveda is known today as the only complete medical system still in exist

er forms of medicine from various cultures, although parallel are r ts of the original information.

3-Traditional Medicine
Unit-1 Lecture-9

reat Three Classics of Ayurveda

ka Samhita (union/collection)

Charaka Samhita is believed to date two to four centuries before Chri
to be the oldest and the most important ancient authoritative writ
rveda.

not known who this person was or, if indeed, this represents the wo
hool of thought"-of scholars or followers of a man known as Caraka.

s work is often considered a redaction (edit for publication) of an ever
ient oral tradition, not an original composition of a single person, a
actor is said to be Charaka.

habala, living about 400 A.D., is believed to have filled in many ve
sing text in the chikitsasthana, which arose over time.

3-Traditional Medicine
Unit-1 Lecture-9

language of Caraka is Sanskrit and its style is poetry with meter and m
try was known to serve as a memory aid.

aka contains over 8,400 metrical verses, which are regularly commit
mory, in toto, by modern medical students of Ayurveda.

resents most of the theoretical edifice of Ayurveda and concentrates
nch of Ayurveda called **kaya (body) chikitsa.**

s is the theory of the internal fire-of digestion or in modern terms i
dicine.

raka never discusses the sub-types of pitta and kapha, but it does l
cribe the five sub-types of vata.

ta Samhita

e Susruta Samhita presents the field of Ayurvedic surgery
akya-meaning foreign body.

3-Traditional Medicine
Unit-1 Lecture-9

s branch of medicine arose in part from the exigencies of dealing w
ects of war.

thought to have arisen about the same time period as the Caraka S
slightly after it. Its style is both prose and poetry with poetry bei
ater portion.

Sushruta Samhita, while dealing with the practice and theory of surg
mportant source of Ayurvedic aphorisms(general truth).

s work is unique in that it discusses **blood** in terms of the **fourth**
nciple.

s work is the first to enumerate and discuss the **pitta sub-doshas**. W
phasis on pitta, surgery, and blood this work best represent
nsformational value of life.

s work, also originally written in Samskrt (Sanskrit), is available in
v without Devanagari or transliteration.

3-Traditional Medicine
Unit-1 Lecture-9

ga Hrdayam

anga Hrdayam is the work of a person named **Vagbhata**.

re are two works by a person or persons with this name. The A
graha is nearly 30 per cent greater in size (by verse count) and is pr
try with prose.

Hrdayam is in prose and seems to have a slightly different organiza
terial than the former. Both works have been dated about the same tir
thought to date after the Charaka and Sushruta Samhitas.

exposition is relatively straightforward and also deals primarily
achikitsa(kaya means body).

this work, we see the **kapha subdoshas** are first listed and des
npleting our modern edifice (large) of vata, pitta, kapha with the
types.

3-Traditional Medicine
Unit-1 Lecture-9

esser Three Classics of Ayurveda

adhara Samhita

Sarngadhara Samhita is a concise exposition of Ayurvedic princip
hor, Sarngadhara, has given his work as a digested version of Ayu
wledge.

s treatise is thought to have originated in the 15th century A.D.

Sarngadhara Samhita is prized for its enumeration and descript
nerous pharmacological formulations used in panchakarma and conta
t textual reference to **diagnosis by means of the pulse**.

subject matter is again the field of kayachikitsa. This present work is av
Devanagari and English translation, by Srikantha Murthy.

3-Traditional Medicine
Unit-1 Lecture-9

a Prakasa

ava Prakasa is not available in English translation. We believe its s
tter deals with rejuvenation, and the preparation of product
mpounds.

ava Nidanam (book written by Madhavakara)

taxonomy is slightly different from Caraka, Susruta, and Vagbhata, av
e in Devanagari and English translation by Srikantha Murthy, deals w
sification of diseases in Ayurveda.

verses are seemingly direct quotes from them, dated around 700 A.D.

covers a wide range of diseases in the fields of bala, salya, da
hvanga, kayachikitsa.

ile it gives detailed description of disease and symptoms, it does n
lanation of etiology (disease doctrines) or suggestions for chikitsa.

3-Traditional Medicine
Unit-1 Lecture-9

ranches of Ayurveda

achikitsa:	Internal medicine
a:	Paediatrics
ha:	Treatment of diseases arising from possession by pathoge evil spirits, etc. Mainly diseases of a mental nature
hvanga:	Dealing with the eyes, ear, nose, throat and dentistry
va:	Surgery including plastic surgery
nstra:	Insect bites, poisons (toxicology)
ayana:	Diseases of advancing age
suti:	Gynaecology and obstetrics

3-Traditional Medicine
Unit-1 Lecture-9

Concepts of Ayurveda

adhi, or disease in Ayurveda is due to an imbalance of three fundar
ments of the body.

se are **vata, pitta and kapha**.

entire universe is made of **five Mahabhutas**, or great elements" (a
es of energy.)

y are: Akasa (roughly, space), Vaayu (air), Tejas (light/fire), Ap (water),
rth)

na/Prakruti

ording to Ayurveda, every human being is a creation of the cosmos, th
mic consciousness, as two energies: **male energy**, called **Purush**
nale energy, Prakruti.

3-Traditional Medicine
Unit-1 Lecture-9

usha is choiceless passive awareness, while Prakruti is choiceful sciousness.

kruti is the divine creative will.

usha doesn't take part in creation, but Prakruti does the divine da ation called **leela**.

creation, Prakruti is first evolved or manifested as supreme intelli ed **mahat**.

hat is the buddhi principal (individual intellect), which further manif **-identity**, called **ahamkara**, which is **ego**.

mkara is influenced by three basic **universal qualities: satva, raja nas**.

va is responsible for clarity of perception.

as causes movement, sensations, feelings and emotions.

nas is the tendency towards inertia, darkness, heaviness, and is respo
periods of confusion and deep sleep.

festation of Creation

m the essence of satva the five senses are created: the ears to hear,
ceive touch, eyes to see, the tongue to taste, and the nose to smell.

essence of rajas is manifested as the five motor organs: speech, hand
itals and the organs of excretion(kidneys, lungs, liver, large intestine,…

mind is derived from satva, while rajas is manifested as prana, the life

tamasic quality is also responsible for the creation of tan matra, the
ments, and from whom the five basic elements are manifested.

y are space, air, fire, water and earth.

from pure consciousness that space is manifested.

3-Traditional Medicine
Unit-1 Lecture-10

ansion of consciousness is space and space is all inclusive.

need space to live, and our body cells contain spaces.

space in between two conjunctive nerve cells aids communication,
space in the mind encompasses love and compassion.

movement of consciousness determines the direction along which c
osition in space takes place.

s course of action causes subtle activities and movements within
ording to the Ayurvedic perspective, this is the **air principle**.

re is a cosmic magnetic field responsible for the movement of the
d and water.

3-Traditional Medicine
Unit-1 Lecture-10

representative in the body is the biological air, responsible for movem
erent(inward) and efferent(outwards), sensory and motor-neuron impu

en someone touches the skin, that tactile skin sensation is carried
in by the principal of movement, which is the sensory impulse.

n there is a reaction to the impulse, which is the motor response, w
ried from the brain to the periphery. This is a very important function o

breathing is due to the movement of the diaphragm.

vements of the intestines and subtle cell movements are also gover
biological principal of air.

air principal also governs the movement of thought, desire and will.

ere there is movement, there is friction, which creates heat, so th
nifestation of consciousness is fire, the principal of heat.

3-Traditional Medicine
Unit-1 Lecture-10

re are many different representations of fire in the body.

solar plexus is the seat of fire, and this fire principle regulates
nperature.

is also responsible for digestion, absorption and assimilation.

present in the eyes, therefore, we perceive light, and the luster in th
result of the fire principle.

re is a fire in the brain as the grey matter, which governs understa
nprehension and appreciation.

is necessary for transformation, comprehension, appreciation, recog
total understanding.

sun is a burning ball of consciousness and the sun gives us light and h

he body, the representative of the sun is the biological fire: the solar
ch gives us heat, digestion, and liver function.

3-Traditional Medicine
Unit-1 Lecture-10

r

ause of the heat of the fire, consciousness melts into water.

ording to Ayurveda water is liquefaction of consciousness.

ter exists in the body in many different forms, such as: plasma, cyto
um, saliva, nasal secretion, orbital secretion and cerebrospinal fluid.

ess water, which we eliminate in the form of urine and sweat.

ter is necessary for nutrition and to maintain the water/electrolyte b
he body. Without water, the cells cannot live.

next manifestation of consciousness is the Earth element.

ause of the heat of the fire and water, there is crystallization.

ording to Ayurveda, earth molecules are crystallization of consciousne

3-Traditional Medicine
Unit-1 Lecture-10

the human body, all solid structures, hard, firm and compact tissu
ived from the earth element (e.g. bones, cartilage, nails, hair, tee
).

n in a single cell,

he cell membrane is earth,

ellular vacuoles are space,

ytoplasm is water,

ucleic acid and all chemical components of the cell are fire, and

ovement of the cell is air.

of these five elements are present in every human cell.

ording to Ayurveda, man is a creation of universal consciousness.

at is present in the cosmos, the macrocosm, the same thing is present
ly, the microcosm. Man is a miniature of nature.

3-Traditional Medicine
Unit-1 Lecture-10

al Constitution

lic philosophy classifies human temperaments into three basic qu
tvic, rajasic and tamasic.

se individual differences in psychological and moral dispositions an
ctions to socio-cultural and physical environments are described in
sic texts of Ayurveda.

vic qualities imply essence, reality, consciousness, purity and cla
ception, which are responsible for goodness and happiness.

movements and activities are due to rajas. It leads to the life of s
oyment, pleasure and pain, effort and restlessness.

nas is darkness, inertia, heaviness and materialistic attitudes.

relative predominance of either satva, rajas, or tamas is responsi
vidual psychological constitution.

3-Traditional Medicine
Unit-1 Lecture-10

: Mental Constitution

people in whom satvic qualities predominate are religious, mpassionate and pure minded.

owing truth and righteousness, they have good manners, behavio duct.

y do not get easily upset or angry. Although they work hard mentall not get mental fatigue, so they need only few hours of sleep each nigh

y look fresh, alert, aware, and full of luster(soft glow), wisdom, jo ppiness.

y are creative, humble and respectful of their teachers. Worshippir humanity, they love all.

y care for people, animals, trees, and are respectful of all life and exis y have balanced intuition and intelligence.

3-Traditional Medicine
Unit-1 Lecture-10

ic Mental Constitution

y are egoistic, ambitious, aggressive, proud, competitive, and h
dency to control others.

y like power, prestige, position, and are perfectionists. They are
rking people, but are lacking in proper planning and direction.

y are ungrounded, active and restless. Emotionally, they are angry, je
bitious, and have few moments of joy due to success.

y have a fear of failure, are subject to stress, and soon lose their
ergy. They require about eight hours of sleep.

y are loving, calm and patient only as long as their self-interests are se

y are good, loving, friendly and faithful only to those who are hel
m. They are not honest to their inner consciousness.

ir activities are self-centered and egoistical.

3-Traditional Medicine
Unit-1 Lecture-10

sic Mental Constitutions

y are less intelligent. They tend towards depression, laziness, and
ep, even during the day. A little mental work tires them easily.

y like jobs of less responsibility, and they love to eat, drink, sleep an
. They are greedy, possessive, attached, irritable, and do not care for o

y may harm others through their own self-interest. It is difficult for th
us their minds during meditation.

Pitta and Kapha: The Three Doshas

structural aspect of the body is made up of five elements, b
ctional aspect of the body is governed by three biological humors.

er and air together constitute vata; fire and water, pitta; and wat
th, kapha. Vata, pitta and kapha are the three biological humors
ds) that are the three biological components of the organism.

3-Traditional Medicine
Unit-1 Lecture-10

y govern psychobiological changes in the body and physio-patho
nges to.

a-pitta-kapha are present in every cell, tissue and organ. In every
y differ in permutations and combinations.

sperm is the male seed, and the ovum is the female egg. They also c
a-pitta-kapha (VPK).

lily vata-pitta kapha changes according to diet, life style and emotion
rm gets influenced by the father's lifestyle, diet and emotions, and the
the mother's.

he time of fertilization, when a single sperm enters a single ovum, ind
stitution is determined.

ording to Ayurveda, there are seven body types: mono types (vata, p
ha predominant), dual types (vata-pitta, pitta-kapha or, kapha-vata
ual types (vata, pitta and kapha in equal proportions).

ry individual has a unique combination of these three doshas.

understand individuality is the foundation of healing according to Ayu
e Science of Life".