Chapter II

HIGHER EDUCATION: Origin and Development

2.1 Introduction

Our structure of governance and management has not changed since their initial introduction during the colonial time. As a result, the out-dated and ancient system failed to respond the fast changing complex and demanding era. Our higher education system is the third largest in the world after the US and China. It would continue to expand for quite some time till it reaches a sustainable level. Unplanned growth and unwieldy size of most of the universities are considered by many as one of the primary reasons of problems. It is true, there is a bigger reason and that is basic to all that lies in the ancient and outdated structure of the higher education system, which lost its relevance, requiring facing day-to-day challenges of its stakeholders. The system is also not geared to respond, to the academic need and support which ultimately affects the quality of education and research.

Indian top Universities, repeatedly fail to figure among the top 200 educational institutions of the world. The Indian Ex. Prime Minister, Dr Manmohan Singh has given speech on 5th February, 2013 he said “We must recognize that too many of our higher education institutions are simply not up to the mark. Too many of them have not kept abreast with changes that have taken place in the world around us…..Still producing graduates in subject that job market no longer required…..Not one Indian University today figures in top 200 universities of the world” acknowledged that the quality of higher education has left much to be desired. Entitle for an “Over-riding emphasis on quality” at the conference of Vice Chancellors of Central Universities organized by President, Pranab Mukharjee at Rashtrapati Bhavan, PM admitted that the unprecedented growth in higher education could be happening without any commensurate improvement in quality. He was not criticised of higher education system at the meeting. Hon. President of India, Mr. Mukherjee said “we must have too observed that the standard of higher education was declining in the country. We need universities to provide quality education that meet international benchmarks”. This is the current scenario of higher education.
“With unlimited demands and limited resources, it is important that the private sector also contribute its best to the provision of higher education in India. The private sector has played a key role in higher education in other countries across the world. Many top universities, Including Harvard, Yale and Stanford are the result of efforts of the private sector. There is no reason why Indian private sector cannot achieve similar results.” That’s why president of India pointed out that the participation of private sector is very important in this process.

The total scenario of education has been fully decorated by higher education system. Higher education is very important sector for the growth and development of human resource which can take responsibility for social, economical and scientific development of the country. Higher education plays the most significant role in the society as well as in the life of the individual. High class cultured people come out from the system of higher education. The trend of higher education was established in our ancient Indian society. Takshasila, Nalanda and Vikramsila were the main centers of higher education. But modern higher education started in our country after the establishment of Calcutta, Madras and Bombay Universities in the year 1857. A huge number of colleges and universities are being established in India. With the development of colleges and universities, problems of higher education also have increased.

The availability of quality of higher education in India, though increasing, is unable to meet the demands of a growing youth population, improvements in school education and a growing middle class. At the same time, it has been widely recognized that the country has a unique opportunity to convert its demographic surplus into its economic strength by providing its young people the right kind of skills.

The University of Mumbai which had 43,000 number of students in 1947-48 has reached now over 3,50,000 students. Similar is the position in the other existing universities in Maharashtra. Nearly one-third of the total students are studying in unaided private institutions. So, as on we certainly need many more universities and colleges particularly keeping in the view that we need to provide greater access for social justice and also to raise the higher education enrollment of the relevant (17-23) age group to 21% from the present 13.4%.

During the last 20 years, the electronic storm has changed the entire education system. We must use new technologies in education sector not only for teaching and learning.
Including, how institutes have been using e-governance for the future management and administration. Institutions are able to gain objectives such as accountability, transparency, speedy decision making and standard of education as well as international ranking of universities is determined by these objectives.

**National Knowledge Commission** is an Indian think-tank charged with considering possible policies that might sharpen India's comparative advantage in the knowledge-intensive service sectors. After 65 years of independent, Government of India finally passed “**The Right of Children to Free and Compulsory Education (RTE) Act, 2009**”.

The title of the RTE Act incorporates the words ‘free and compulsory’. ‘Free education’ means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.

The **History of Education** in India has its roots to the ancient ages. The system of Indian education has traveled a long way. Besides the scientific mode of teaching, the relation shared by teachers and students is also age old. As we are seeing education is not new to India but as per demand from society we have to give a new look! , as shown in the following Picture No 2.1.

![Picture No 2.1](image)

Education in India is a term has broader significance. Education is a way to gather knowledge and enrich ones thought. It is the learning of knowledge, information and
skills during the course of life. There is an array of educational opportunity at the informal level as well as formal level.

History of Education in India can be traced back to the ancient era. **Education in Ancient India** conforms to the third century BC. During that early period sages and scholars imparted education orally and after the introduction of alphabets writing developed on Palm leaves and barks of trees. In addition to that temples and community centers often took the role of schools. Gradually the concept of Gurukul System originated. The Gurukul system of education is one of the oldest on earth. Gurukuls were traditional Hindu residential schools of learning. At the Gurukuls, the teacher imparted knowledge of Religion, Scriptures, Philosophy, Literature, Warfare, Statecraft, and Mathematics, Medicine, Astrology and History. The Gurukuls abided by the principles that only students belonging to Brahmin and Kshatriya communities were taught in these Gurukuls.

Early education in India commenced under the supervision of a **guru**. Initially, education was open to all and seen as one of the methods to achieve **Moksha**, or enlightenment. Monastic order of education under the supervision of a guru was a favoured form of education for the nobility in ancient India.

As time progressed, due to superiority complexes, the education was imparted on the basis of caste and the related duties that one had to perform as a member of a specific caste. The knowledge in these orders was often related to the task a section of the society had to perform. The priest classes, the Brahmins, were imparted knowledge of religion, philosophy and other ancillary branches while the warrior classes, the Kshatriya, were trained in the various aspects of warfare. The business classes, the Vaishya were taught their trade and the working class of the **shudras** was generally deprived of educational advantages. The book of laws, the **Manusmriti**, and the treatise on statecraft the **Arthashastra** were among the influential works of this era which reflects the outlook and understanding of the world at the time.

Secular Buddhist institutions cropped up along with monasteries. These institutions imparted practical education in Medicine. A number of urban learning centers became increasingly visible from the period between 200 BCE to 400 CE. The important urban centers of learning were Taxila and Nalanda among others. The first large established university is thought to be **Nalanda** established in 427 A.D in India. At its peak, the
university attracted a number of foreign scholars and students from as far away as Tibet, China, Greece, and Persia. These institutions systematically imparted knowledge to study topics such as Buddhist literature, logic, grammar etc. By the time of the visit of the Islamic scholar Alberuni (973-1048 CE), India already had a sophisticated system of mathematics.

With the arrival of the British Raj in India the modern European education came to India. British Raj was reluctant to introduce mass education system as it was not their interest. The colonial education policy was deliberately one of reducing indigenous culture and religion, an approach which became too known as Macaulayism with this the whole educational as well as government system that went through change. B. Nivedita “The Destruction of the Indian System of Education” adapted from a speech given to the Vivekananda Study Circle. IIT – Madras January 1998. The system soon became solidified in India as a number of primary, secondary and tertiary centers for education cropped up during the colonial era. Blackwell, 91-92 between 1867 and 1941 the British increased the percentage of the population in Primary and Secondary Education from around 0.6% of the population in 1867 to over 3.5% of the population in 1941. In 1901 the literacy rate in India was only about 5% though by independence it was nearly 20%.

After independence in 1947, Maulana Azad, India’s first education minister envisaged strong central government control over education throughout the country, with a uniform educational system. Education has been described as a basic human right since 1952. The United Nations International Covenant on Economic, Social and Cultural Rights of 1966 guarantees this right under its Article 13. The Indian subcontinent has a long and rich history of organized education.

2.2 Origin of Education-

The gradual rise of more complex civilizations in the river valleys of Egypt and Babylonia, knowledge became too complicated to transmit directly from person to person and from generation to generation. To be able to function in complex societies, man needed some way of accumulating, recording, and preserving his cultural heritage. So with the rise of trade, government, and formal religion came the invention of writing, by about 3100 BC.

Firsthand experience in everyday living could not teach such skills as writing and reading. Hence, a place was devoted exclusively to learning i.e. the school. And with the school
appeared, a group of adults specially designated as teachers, the scribes of the court and the priests of the temple. The children were either in the vast majority who continued to learn exclusively by an informal apprenticeship or the tiny minority who received formal schooling.

The method of learning was memorization, and the motivation was the fear of harsh physical discipline. A child struggled to learn what was taught was nothing new. An Egyptian child’s clay tablet\(^3\) discovered by archaeologist in 3000 B.C. was inscribed with the words "*Thou didst beat me and knowledge entered my head.*"

The ancient people of the Middle East, the Jews were the most insistent that all children, regardless of class should be educated. In the 1st century AD, the historian Flavius Josephus wrote: "*We take most pains of all with the instruction of the children and esteem the observance of the laws and the piety corresponding with them the most important affair of our whole life.*" The Jews established elementary schools where boys from about 6 to 13 years of age probably learned rudimentary mathematics and certainly learned reading and writing. The main concern was the study of the first five books of the Old Testament (i.e. the Pentateuch) and the precepts of the oral tradition that had grown up around them. At the age 13, brighter boys could continue their studies as disciples of a ‘rabbi’, the "master" or "teacher." So vital was the concept of instruction for the Jews that the synagogues existed at least as much for education as for worship.

### 2.2.1 Education in World -

The history of education according to Dieter Lenzen, president of the Freie Universitat Berlin 1994, "began either millions of years ago or at the end of 1770". Education as a science cannot be separated from the educational traditions that existed before. Adults trained the young of their society in the knowledge and skills they would need to master and eventually pass on. The evolution of culture, and human beings as a species depended on this practice of transmitting knowledge. In pre-literate societies this was achieved orally and through imitation. Story telling continued from one generation to the next. Oral language was developed into written symbols and letters. The depth and breadth of knowledge that could be preserved and passed soon increased exponentially. When cultures began to extend their knowledge beyond the basic skills of communicating, trading, gathering food, religious practices, etc., formal education, and schooling, eventually followed.
The first university establishments in the western world are thought to be University of Bologna (founded in 1088) and later Oxford University (founded around 1096) shown in the following Picture No 2.2 and 2.3 respectively.

**Picture No 2.2**  
*A depiction of the University of Bologna, Italy, founded in 1088.*

In the West, Ancient Greek philosophy arose in the 6th century BC. Plato was the Classical Greek *philosopher, mathematician and writer* of philosophical dialogues who founded the Academy in Athens which was the first institution of higher learning in the Western world. Inspired by the admonition of his mentor, Socrates, prior to his unjust execution that "the unexamined life is not worth living", Plato and his student, the political scientist Aristotle, helped lay the foundations of Western philosophy and science.

**Picture No 2.3**  
*A portrayal of the University of Oxford, UK around 1096*

The city of Alexandria in Egypt was founded in 330 BC, became the successor to Athens as the *intellectual cradle* of the Western World. The city hosted such leading lights as the mathematician Euclid and anatomist Herophilus; constructed the
great Library of Alexandria; and translated the Hebrew Bible into Greek. Greek civilization was subsumed within the Roman Empire. While the Roman Empire and its new Christian religion survived in an increasingly Hellenized form in the Byzantine Empire which centered at Constantinople in the East, Western civilization suffered a collapse of literacy and organization following the fall of Rome in AD 476.

In the East, Confucius (551-479), of the State of Lu, was China's most influential ancient philosopher, whose educational outlook continues to influence the societies of China and neighbours like Korea, Japan and Vietnam. He gathered disciples and searched in vain for a ruler who would adopt his ideals for good governance, but his Analects were written down by followers and have continued to influence education in the East into the modern era.

2.2.2 Education in India

The search for knowledge has been the defining theme of the ancient civilization in India. In the past, at least 2,800 years ago, highly advanced institution of learning situated in Nalanda, Takshashila and Vikramshila flourished imparting education on vast range of subjects where the spirit of inquiry was encouraged. Erudite treatises on a variety of subjects ranging from Science to fine Arts, Mathematics to Philosophy are living testimonies to the heights of learning and knowledge that developed in Ancient India. Oldest Vikramshila University shown in the following picture is now located in Bihar. The foundation for this university was laid in 8th Century is shown in the following Picture No 2.4.

Picture No 2.4
The Vikramshila University was laid in 8th Century
Under the British rule, however, education remained elitist catering to only the socially advantageous sections of society. The colonial period also saw the beginning of the university system in India with Lord Macaulay’s minutes forming the foundation of the philosophy behind the development of English education system. By 1923, there were 23 universities established across India.

After independence, the Government of India realized that the economics and social progress would be contingent upon the spread of education across the country. Several initiatives were taken including the setting up of the University Grant Commission, an autonomous body for the development and maintenance of standards in higher education, and establishment of several other institutions of technical and scientific excellence.

The Constitution of India devolves responsibility for education upon the central as well as the state Governments. The policy and action plan of higher education in independent India are largely based on two landmark reports called the University Education Commission (also known as Radhakrishnan Commission) Report in 1948-49 as well as the Education Commission (also known as Kothari Commission) Report in 1964-66 under the chairmanship of Dr. D.S. Kothari symbolized the symbiotic relationship between education and national development. In 1986, a National Policy on Education was enunciated to prepare the Indian education system for the 21st century. The National Policy on Education, as amended in 1992, stated that higher education provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity and contributes to national development through dissemination of specialized knowledge and skills.

2.2.3 Education in Maharashtra

Maharashtra or the Great Land has a glorious past which forms a corona for the state, it is also an entity built on collective efforts of its people. The history of Maharashtra has not been teach, great kings, great rulers, and great culture. The color of the past has made the present equally bright. According to the Archeological evidences the
history of Maharashtra dates back to the 3rd century BC. Maharashtra has been the hub of trade and industry since the early days.

On the eve of the British conquest, there were two types of schools which imparted instructions to the Hindus and the Muslims in Maharashtra. The education in Hindu society was limited to the upper classes mostly the Brahmins, Banias and the people who involved themselves in accounts of land lords, nobles and Government departments. In the same way, the Muslims had their schools held in mosque; and the instructions of Muslims were based on their holy book Quran.

Under the Marathas, emphasis was given to reading, writing and arithmetic based on routine calculations and dealings. The higher education was based on religious text and was imparted only to Brahmins. The Peshwas grant ‘inams’ and extended financial aid to such highly educated people that created burden on the state exchequer. The instructions regarding western education began under the British rule only mainly from 1813. Among the Governors of Bombay, Elphinstone paid much attention towards the education of natives. He wanted to improve the native schools, give them the knowledge of western sciences and acquire more funds for the educational plan of Maharashtra.

The charter of 1833 laid down the policy of improving Indian administration clearly in which it was mentioned that no native of the British crown on the basis of his place of birth, religion, colour or descent be considered disable to any office or employment under the company. This led the people to scramble for English education in order to hold position of plum in the administration of the “East India Company”. The resolution of 1835 said that the object of the British Government in India must be to promote European literature and science and the fund procured must be used for education in English language only. But the subsequent resolution tried to encourage the people to take education in vernacular and classical languages of India.

The Charter Act of 1853 and the popular dispatch of 1854 of Sir Charles Wood gave further encouragement to Indians to reap fruits of English education. These developments led to open several schools, colleges and affiliate to the newly established University of Bombay. Later, the transfer of Indian Government from the East India Company to the British Crown took place due the Queen’s Proclamation of 1858 after the uprising of 1857; it did not change the basic educational policy in India.
On the contrary it helped to spread education not only in cities and towns but in district and thashil places also. The most important reason was the creation of a Department of Public Instruction under its Director, who was to conduct survey or periodic inspections of schools and recommend for Grant-in aid scheme to the Government. This helped mushroom educational institutions throughout Maharashtra. The work of social reformers like Mahatma Jyotiba Phule who established schools for girls and untouchables and made the provisions for training institutions for teachers also proved tremendous stimulus to private societies and individuals to open schools at various places. The net result of this spread of education was that the students began to prepare for the prestigious Indian Civil Service (I.C.S.) examinations which were held in England at very young age and became successful in it.

The Hunter Commission of 1882-83 during the period of Lord Ripon assigned the responsibility of opening schools to the local boards. The New English School established in Pune in 1881 had already prepared the ground for societies in Pune to open schools & colleges. This led the Deccan education Society, Pune to start a college, which popularly came to be known as Fergusson College. This college created many devoted graduates who involved themselves in the Indian National Movement and social reforms. The medical and legal education had already begun in India. Due to handsome donation from Jamshetji Tata, the Government of Bombay opened the Grand Medical College.

Establishment of these three Universities as the Bombay, Madras and Calcutta Universities claimed to be a brave act of the British Government, but it was not so because the Universities became only examining bodies only. They were not allowed to undertake teaching and research the essential functions of a University. The Universities Act of 1904 instead of bringing uniform system in education restricted the autonomy of universities and added to the discontent of the people. Although, some commissions, reforms and schemes were brought to educate Indians but they were not executed properly and the objects prescribed were not fulfilled. The real progress in Maharashtra and India took place after the independence of country. The University of Mumbai is the oldest university in India. Following Picture No 2.5 shows the Mumbai University.
The University of Mumbai, established in 1856, is the oldest University in Maharashtra.

The modern state of Maharashtra came into existence in the year 1st May 1960. Under the Bombay Reorganization Act the states of Maharashtra and Gujarat were legally given the status of separate states on the basis of linguistic differences.

The State Government right from its formation committed itself to planned development of primary education. The Mumbai city became the capital of Maharashtra. The planning process in the country started in the year of 1951 with the 1st Five Year Plan. Maharashtra joined this process of socio-economic development through planning from the 3rd Five Year Plan onwards.

The number of primary schools in the state has risen from 44,535 in 1970-71 to around 69,330 in 2006-07 and students-teacher ratio is 34:1. The number of secondary and higher secondary institutes in the state has risen from 5,313 in 1970-71 to around 20,339 in 2006-07 and students-teacher ratio is 38:1.

Similarly, the number of institutes offering higher education has seen a rise from 547 in 1970-71 to 1,677 in 2006-07. Under the support of the central government and the state government, various projects have been undertaken for the universalisation of primary education across the state. Schemes like *Sarva Sikshan Mohim, Vasti Shala, Mahatma Phule Shikshan Hami Yojana* was already implemented in state.

National Literacy Mission, Madhyan Bhojan (nutritional diet) scheme are some of the measures undertaken for spreading the education in the state. The enrolment rate is the main indicator of the progress in higher education and is measured in Graduate
Enrolment Ratio (GER). The GER from different countries show that developed countries have GER 54.6% and the world average is 23.2% and developing countries have 11.3% average (UGC Report, Nov 2008).

Maharashtra, as per the data available for 1999-2000 has a GER of 14.14% and is ranked seventh with Chandigarh leading at 26.24%, followed by Delhi at 21.16% and Kerala at 18.08%. While Maharashtra is recognised as one of the better destinations for higher education, pro-active measures are required for improving the quality of higher education. The Government may also take the initiative of allowing the private sector to run government schools, besides setting up new ones. This would allow the private sector to use government assets to create better revenue streams and provide additional and value-added services to students. Private party should use the found for the betterment of stakeholder. Hence, they would be accountable for the found it receives from the government.

The State of Maharashtra has 44 Universities spread across 32 districts. These universities are central, state or deemed universities. The state is equally good for the fields like Engineering, Medical, Management and other professional course. There are a 4631 number of institutes/colleges for the above fields in the state. These institutes/colleges are affiliated to the various universities.

The education system in Maharashtra has undergone a massive change over the last decade. The courses and curriculum are made student-friendly and economical for students who are hailing from all backgrounds. In 2010, the school education system also underwent a change. State Curriculum Framework was set up so that school education could be made “contemporary and relevant”. During the same period, the concept of virtual classrooms through video conferencing was also introduced in the education system.

Maharashtra is the commercial capital of India. Besides being a world class business hub. Maharashtra is one of the top destinations for giving quality education in India. With numerous school, colleges and other educational institutions operating in the state, Maharashtra is flocked by students from all over the country for pursuing a career in their own chosen field. According to the statistics of Census 2011, the literacy rate in the state of Maharashtra is 82.91% which is much higher than rest of the Indian states. The male literacy rate is 89.82% and female literacy rate is 75.48%.
The University of Mumbai is one of the best Indian universities. IIM Mumbai is one the best Institution in India.

### 2.3 World History of Education in Ancient Civilization

Most probably every generation, since the beginning of human existence, somehow passed on its stock of values, traditions, methods and skills to its next generation. The passing on of culture is also known as enculturation and the learning of social values and behaviors’ is socialization. The history of the curricula of such education reflects history itself, the history of knowledge, beliefs, skills and cultures of humanity. Most of human history lies in pre-history, the period before the use of writing, and before written history. In pre-literate societies, education was achieved through demonstration and copying as the young learned from their elders. Rural communities had few resources to expend on education. At later stages they received instructions of a more structured and formal nature, imparted by people not necessarily related, in the context of initiation, religion or ritual. Some forms of traditional knowledge were expressed through stories, legends, folklore, rituals, and songs, without the need for a writing system. The stories thus preserved are also referred to as part of an oral tradition. Before the development of writing, it is probable that there were already epic poems, hymns to gods and incantations (such as those later found written in the ancient library at Ninevah, and the Vedas), and other oral literature.

In ancient India, the Vedas were learnt by repetition of various forms of recitation. By means of memorization, they were passed down through many generations.

### 2.3.1 Origin of Education in Ancient Civilization

Education in ancient civilization the development of writing starts in about 3500 BC in Egypt. Later, the world's oldest known alphabet was developed in central Egypt around 2000 BC. One hieroglyphic script was used on stone monuments; other cursive scripts were used for writing in ink on papyrus, a flexible, paper-like material, made from the stems of reeds that grow in marshes and beside rivers such as the River Nile.
The Phoenician writing system was adapted from the Proto-Canaanite script in around the 11th century BC, which in turn borrowed ideas from Egyptian hieroglyphics. This script was adapted by the Greeks. The Phoenician system was also adapted into the Aramaic script, from which the Hebrew script and also that of Arabic are descended.

In China, the early oracle bone script has survived on tens of thousands of oracle bones dating from around 1400-1200 BC in the Shang Dynasty. Out of more than 2500 written characters in used in China in about 1200 BC, as many as 1400 are identifiable as the source of later standard Chinese characters.

Other surfaces used for early writing include wax-covered writing boards (used, as well as clay tablets, by the Assyrians), sheets or strips of bark from trees (in Indonesia, Tibet and the Americas), the thick palm-like leaves of a particular tree, the leaves then punctured with a hole and stacked together like the pages of a book (these writings in India and South east Asia include Buddhist scriptures and Sanskrit literature), parchment, made of goatskin that had been soaked and scraped to remove hair, which was used from at least the 2nd century BC, vellum, made from calfskin, and wax tablets which could be wiped clean to provide a fresh surface in Roman times.

As the customs and knowledge of ancient civilizations became more complex, many skills were passed down from a person skilled at the job - for example in construction, animal husbandry, farming, fishing, food preparation and military skills.

Oral traditions were central in societies without written texts. Literacy in preindustrial societies was associated with civil administration, law, long distance trade or commerce, and religion. A formal schooling in literacy was provided to an elite group either at religious institutions or at the palaces of the rich and powerful.

Providing literacy to most children has been a development of the last 150 or 200 years, or even last 50 years in some Third World countries. Schools for the young have historically been supplemented with advanced training, especially in Europe and China, for priests, bureaucrats and businessmen. For most craftsmen skills were learned during an apprenticeship.

In many early civilizations, education was associated with wealth and the maintenance of authority, or with prevailing philosophies, beliefs or religion.
2.3.2 In Middle East
In Mesopotamia, the early logographic system of cuneiform script took many years to master. Thus only a limited number of individuals were hired as scribes to be trained in its reading and writing. Only royal offspring and sons of the rich and professionals such as scribes, physicians, and temple administrators, were schooled. Most boys were taught their father's trade or were apprenticed to learn a trade. Girls stayed at home with their mothers to learn housekeeping and cooking, and to look after the younger children. Later, when a syllabic script became more widespread, more of the Mesopotamian population became literate. Later still in Babylonian times there were libraries in most towns and temples; an old Sumerian proverb averred that "he who would excel in the school of the scribes must rise with the dawn." In this era knowledge became too complicated to transmit directly from person to person and from generation to generation. To be able to function in complex societies, man needed some way of accumulating, recording, and preserving his cultural heritage. So with the rise of trade, government, and formal religion came the invention of writing, by about 3100 BC.

Early Civilizations - Ashurbanipal (685 – c. 627 BC), a king of the Neo-Assyrian Empire, was proud of his scribal education. His youthful scholarly pursuits included oil divination, mathematics, reading and writing as well as the usual horsemanship, hunting, chariotry, soldierliness, craftsmanship, and royal decorum. During his reign he collected cuneiform texts from all over Mesopotamia, and especially Babylonia, in the library in Nineveh, the first systematically organized library in the ancient Middle East, which survives in part today.
In ancient Israel the Torah (religious text) includes commands to read, learn, teach and write the Torah, thus requiring literacy and study. In 64 AD the high priest caused schools to be opened. Emphasis was placed on developing good memory skills in addition to comprehension oral repetition. Despite this schooling system, it would seem that many children did not learn to read and write, because it has been estimated that "at least ninety percent of the Jewish population of Roman Palestine could merely write their own name or not write and read at all". Early civilization’s education is clear with the help of above Picture No 2.6.

2.3.3 In Indian Subcontinent

In ancient India, during the Vedic period from about 1500 BC to 600 BC, most education was based on the Veda and later Hindu texts and scriptures.

Vedic education included: proper pronunciation and recitation of the Veda, the rules of sacrifice, grammar and derivation, composition, versification and meter, understanding of secrets of nature, reasoning including logic, the sciences, and the skills necessary for an occupation. Some medical knowledge existed and was taught. There is mention in the Veda of herbal medicines for various conditions or diseases, including fever, cough, baldness, snake bite and others.

Education, at first freely available in Vedic society, became over time more discriminatory as the caste system, originally based on occupation, evolved, with the Brahman (priests) being the most privileged of the castes.

The oldest of the Upanishads - another part of Hindu scriptures - date from around 500 BC. These texts encouraged an exploratory learning process where teachers and students were co-travelers in a search for truth. The teaching methods used reasoning and questioning. Nothing was labeled as the final answer.

The Gurukul system of education supported traditional Hindu residential schools of learning; typically the teacher's house or a monastery. Education was free, but students from well-to-do families paid "Gurudakshina," a voluntary contribution after the completion of their studies. At the Gurukuls, the teacher imparted knowledge of Religion, Scriptures, Philosophy, Literature, Warfare, Statecraft, Medicine, Astrology and History. The corpus of Sanskrit literature encompasses a
rich tradition of poetry and drama as well as technical scientific, philosophical and
generally Hindu religious texts, though many central texts
of Buddhism and Jainism have also been composed in Sanskrit.

Two epic poems formed part of ancient Indian education. The Mahabharata, part
of which may date back to the 8th century BC discusses human goals (purpose,
pleasure, duty, and liberation), attempting to explain the relationship of the
individual to society and the world and the workings of karma. The other epic
poem, Ramayana, is shorter, although it has 24,000 verses. It is thought to have
been compiled between about 400 BC and 200 AD. The epic explores themes of
human existence and the concept of dharma.

'An early center of learning in India dating back to the 5th century BC was Taxila,
which taught the three Vedas and the eighteen accomplishments. It was an
important Vedic/Hindu and Buddhist centre of learning from the 6th
century BC to the 5th century AD.

2.3.4 In China

During the Zhou Dynasty (1045 BC to 256 BC), there were five national schools
in the capital city, Pi Yong and other schools for the aristocrats and nobility,
including Shang Xiang. The schools mainly taught the Six Arts: rites, music,
archery, charioteering, calligraphy, and mathematics. According to the Book of
Rituals, at age twelve, boys learned arts related to ritual (i.e. music and dance)
and when older, archery and chariot driving. Girls learned ritual, correct
deportment, silk production and weaving.

It was during the Zhou Dynasty that the origins of native Chinese philosophy also
developed. Confucius (551 BC – 479 BC) founder of Confucianism, was a
Chinese philosopher who made a great impact on later generations of Chinese,
and on the curriculum of the Chinese educational system for much of the
following 2000 years.

During the Han Dynasty (206 BC- 221 AD), boys were ready at the age of seven
to start learning basic skills in reading, writing and calculation.
Later, during the **Ch'in dynasty** (246-207 BC), a hierarchy of officials was set up to provide central control over the outlying areas of the empire. To enter this hierarchy, both literacy and knowledge of the increasing body of philosophy was required: "*the content of the educational process was designed not to engender functionally specific skills but rather to produce morally enlightened and cultivated generalists*".

The **Nine rank systems** were a civil service nomination system during the **Three Kingdoms** (220-280 AD) and the **Southern and Northern Dynasties** (420-589 AD) in China. Theoretically, local government authorities were given the task of selecting talented candidates, then categorizing them into nine grades depending on their abilities. In practice, however, only the rich and powerful would be selected. The Nine Rank System was eventually superseded by the Imperial examination system for the civil service in the **Sui Dynasty** (581-618 AD).

### 2.3.5 In Greece and Rome

In the **city-states** of **ancient Greece**, most education was private, except in Sparta. For example, in Athens, during the **5th and 4th century BC**, aside from **two years** military training, the state played little part in schooling. Anyone could open a school and decide the curriculum. Parents could choose a school offering the subjects they wanted their children to learn, at a monthly fee they could afford. Most parents, even the poor, sent their sons to schools for at least a few years, and if they could afford it from around the age of seven until fourteen, learning gymnastics, music and literacy. Girls rarely received formal education. At writing school, the youngest students learned the alphabets by songs, then later by copying the shapes of letters with a stylus on a waxed wooden tablet. After some schooling, the sons of poor or middle-class families often learnt a trade by apprenticeship, whether with their father or another tradesman. By around 350 BC, it was common for children at schools in **Athens** to also study various arts such as drawing, painting, and sculpture. The richest students continued their education by studying with sophists, from whom they could learn subjects such as **rhetoric (speech making), mathematics, geography, natural history, politics, and logic**. Some of Athens' greatest schools of higher education included
the Lyceum (the so-called Peripatetic school founded by Aristotle of Stageira) and the Platonic Academy (founded by Plato of Athens). The education system of the wealthy ancient Greeks is also called Paideia. In the subsequent Roman Empire, Greek was the primary language of science. Advanced scientific research and teaching was mainly carried on in the Hellenistic side of the Roman Empire, in Greek.

The first schools in Ancient Rome arose by the middle of the 4th century BC. These schools were concerned with the basic socialization and rudimentary education of young Roman children. The literacy rate in the 3rd century BC has been estimated at around 1% to 2%. We have very few primary sources or accounts of Roman educational process until the 2nd century BC, during which there was a proliferation of private schools in Rome. At the height of the Roman Republic and later the Roman Empire, the Roman educational system gradually found its final form.

The educator Quintilian recognized the importance of starting education as early as possible, noting that “memory … not only exists even in small children, but is especially retentive at that age”. A Roman student would progress through schools just as a student today might go from elementary school to middle school, then to high school, and finally college. Progression depended more on ability than age with great emphasis being placed upon a student’s ingenious or inborn “gift” for learning, and a more tacit emphasis on a student’s ability to afford high-level education. Only the Roman elite would expect a complete formal education.

It has been argued that literacy rates in the Greco-Roman world were seldom more than 20 percent; averaging perhaps not much above 10 percent in the Roman empire, though with wide regional variations, probably never rising above 5 percent in the western provinces, and that the literate in classical Greece did not much exceed 5 percent of the population. The argument for these claims is that ancient governments did not invest in public education.
2.4 History of Education in India

2.4.1 In the middle Ages (500-1600 AD)

The first millennium and the few centuries preceding it saw the flourishing of higher education at Nalanda, Takshashila University, Ujjain and Vikramshila Universities. Amongst the subjects taught were Art, Architecture, Painting, Logic, Mathematics, Grammar, Philosophy, Astronomy, Literature, Buddhism, Hinduism, Arthashastra (Economics and Politics), Law, and Medicine. Each university specialized in a particular field of study. Takshila specialized in the study of medicine, while Ujjain laid emphasis on astronomy. Nalanda, being the biggest center, handled all branches of knowledge, and housed up to 10,000 students at its peak.

Nalanda was a one of the first great universities in recorded history. It was a Buddhist center of learning founded in Bihar, India around the 5th century and conferred academic degree titles to its graduates, while also offering post-graduate courses. It has been called ".

Vikramasila University, another important center of Buddhist learning in India, was established by King Dharmapala (783AD to 820AD) in response to a supposed decline in the quality of scholarship at Nalanda.

Indigenous education was widespread in India in the 18th century, with a school for every temple, mosque or village in most regions of the country. The schools were attended by student representatives of all classes of society.

2.4.2 In Higher middle Ages

Chinese scholars\(^4\) such as Xuanzang and Yi Jing arrived in Indian institutions of learning to survey Buddhist texts. Yi Jing additionally noted the arrival of 56 scholars from India, Japan, and Korea. However, the Buddhist institutions of learning were slowly giving way to a resurgent tradition of Brahmanism during that era. Scholars from India also journeyed to China to translate Buddhist texts. During the 10th century a monk named Dharmadeva from Nalanda traveled to China and translated a
number of texts. Another center at Vikramshila maintained close relations with Tibet. The Buddhist teacher Atisa was the head monk in Vikramshila before his journey to Tibet.

Examples of royal patronage include construction of buildings under the Rastrakuta dynasty in 945 CE. The institutions arranged for multiple residences for educators as well as state sponsored education and arrangements for students and scholars. Similar arrangements were made by the Chola dynasty in 1024 CE, which provided state support to selected students in educational establishments. Temple schools from 12–13th centuries included the school at the Nataraja temple situated at Chidambaram.

Another establishment during this period is the Uddandapura institute established during the 8th century under the patronage of the Pala dynasty. The institution developed ties with Tibet and became a center of Tantric Buddhism. During the 10–11th centuries the number of monks reached a thousand, equaling the strength of monks at the sacred Mahabodhi complex. The time of the arrival of the Islamic scholar Al Biruni India already had an established system of science and technology in place.

2.4.3 In Early Modern Era

The advent of Islam in India the traditional methods of education increasingly came under Islamic influence. Pre-Mughal rulers such as Qutb-ud-din Aybak and other Muslim rulers initiated institutions which imparted religious knowledge. Scholars such as Nizamuddin Auliya and Moinuddin Chishti became prominent educators and established Islamic monasteries. Students from Bukhara and Afghanistan visited India to study humanities and science.

Islamic institution of education in India included traditional madrassas and maktabs which taught grammar, philosophy, mathematics and law. The centers of education in India was 18th century Delhi was the Madrasa Rahimiya under the supervision of Shah Waliullah, an educator who favored an approach balancing the Islamic scriptures and science. The course at the Madrasa Rahimiya prescribed 2 books on grammar, 1 book on philosophy, 2 books on logic, 2 books on astronomy and mathematics, and 5 books on mysticism.
The education system under the rule of Akbar adopted an inclusive approach with the monarch favoring additional courses: medicine, agriculture, geography, and even from texts from other languages and religions, such as Patanjali’s work in Sanskrit. The traditional science in this period was influenced by the ideas of Aristotle, Bhaskara II, Charkas and Ibn Sina. This inclusive approach was not uncommon in Mughal India. The more conservative monarch Aurangzeb also favored teaching of subjects which could be applied to administration. The Mughals, in fact, adopted a liberal approach to sciences and as contact with Persia increased the more intolerant Ottoman school of manqul education came to be gradually substituted by the more relaxed maqul school.

The middle Ages also saw the rise of private tuition in India. A tutor or Riyazi, was an educated professional who creating calendars or generating revenue estimates for nobility.

2.4.4 In Colonial Era

The colonial era saw huge differences of opinion among the colonialists themselves about education for Indians. This was divided into two schools - the orientalists, who believed that education should be imparted in Indian languages (Sanskrit) like Thomas Babington Macaulay, who strongly believed that India had nothing to teach its own subjects and the best education for them should happen in English. Thomas Babington Macaulay introduced English education in India, especially through his famous minute of February 1835. He called an educational system that would create a class of Anglicized Indians who would serve as cultural intermediaries between the British and the Indians. Macaulay succeeded in implementing ideas previously put forward by Lord William Bentinck, the governor general since 1829. Bentinck favored the replacement of Persian by English as the official language, the use of English as the medium of instruction, and the training of English-speaking Indians as teachers. He was inspired by utilitarian ideas and called for "useful learning." However, Bentinck's ideas were rejected by the Court of Directors of the East India Company and he retired as governor general.

Frykenberg examines the 1784 to 1854 period to argue that education helped to integrate the diverse elements Indian society, thereby creating a new common bond
from among conflicting loyalties. The native elite demanded modern education. The University of Madras, founded in 1857, became the single most important recruiting ground for generations of ever more highly trained officials. This exclusive and selective leadership was almost entirely "clean-caste" and mainly Brahman. It held sway in both the imperial administration and within princely governments to the south. The position of this mandarin class was never seriously challenged until well into the twentieth century.

### 2.5 Higher Education in India

India's higher education system is the third largest in the world, next to the US and China. The main governing body at the tertiary level is the UGC, which enforces its standards, advises the government, and helps to coordinate among the center, the states and universities. Accreditation for higher learning is overseen by 12 autonomous institutions established by the UGC.

Indian higher education system has expanded at a fast pace by adding nearly 20,000 colleges and more than 8 million students in a decade from 2000-01 to 2010-11. Higher Education sector has witnessed a tremendous increase in its institutional capacity in the years since Independence. As of 2011, India has 43 central universities, 289 state universities, 130 deemed universities, 94 private universities, 5 institutions established and functioning under the State Act, and 33+ Institutes of National Importance. Other institutions include 33,000 colleges as Government Degree Colleges and Private Degree Colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions as reported by the UGC in 2012.

The emphasis in the tertiary level of education lies on science and technology. Indian educational institutions by 2004 consisted of a large number of technology institutes. Distance learning is also a feature of the Indian higher education system. The Government has launched ‘Rashtriya Uchhattar Shiksha Abhiyan’ to provide strategic funding to State higher and technical institutions. A total of 316 state public universities and 13,024 colleges will be covered under it.

Indian educational institutions by 2004 consisted of a large number of technology institutes. Distance learning and open education is also a feature of the Indian higher
education system, and is looked after by the Distance Education Council. **Indira Gandhi National Open University** (IGNOU) is the largest university in the world by number of students, having approximately 3.5 million students' across the globe.

Some institutions of India, such as the **Indian Institutes of Technology** (IITs), **Indian Institutes of Management** (IIMs), **National Institute of Technology** (NITs) and **Jawaharlal Nehru University** have been globally acclaimed for their standard of education in engineering. The IITs enroll about 10,000 students annually and the alumni have contributed to both the growth of the private sector and the public sectors of India. However the IIT's have not had significant impact on fundamental scientific research and innovation. Several other institutes of fundamental research such as the **Indian Association for the Cultivation of Science** (IACS), **Indian Institute of Science** (IISc), and **Tata Institute of Fundamental Research** (TIFR) are acclaimed for their standard of research in basic sciences and mathematics. However, India has failed to produce world class universities both in the private sector or the public sector.

Besides top rated universities which provide highly competitive world class education to their pupils, India is also home to many universities which have been founded with the sole objective of making easy money. Regulatory authorities like UGC and AICTE have been trying very hard to extirpate the menace of private universities which are running courses without any affiliation or recognition. Indian Government has failed to check on these education shops, which are run by big businessmen and politicians. Many private colleges and universities do not fulfill the required criterion by the Government and central bodies (UGC, AICTE, MCI, BCI etc.) and take students for a ride. For example, many institutions in India continue to run unaccredited courses as there is no legislation strong enough to ensure legal action against them. Quality Assurance mechanism has failed to stop misrepresentations and malpractices in higher education.

The unique characteristic of higher education in India is the strong bond between the universities and society. Historically, universities have been shaped by, drawn their agenda from, and been responsible to the communities that founded them. Each generation has established a social contract between the university and the society it serves.
2.5.1 Vision of Higher Education

The Government of India, vision towards the Higher Education is “To realize India’s human resource potential to its fullest in the Higher Education sector, with equity and inclusion.” The aim of higher education is to produce graduates who understand that they have a responsibility as future leaders within the organisations they will work for, as members of societies, on the collective level, but also as responsible individuals. The Government aims to cultivate the potential of each individual to be involved and concerned with the wider community.

2.5.2 Structure of Indian Education

After passing the Higher Secondary Examination, students may enrol in general degree programmes such as bachelor's degree in arts, commerce or science, or professional degree programmes such as engineering, law or medicine. The main governing body at the tertiary level is the University Grants Commission (UGC), which enforces its standards, advises the government, and helps to coordinate between the center and the state. Accreditation for higher learning is overseen by 12 autonomous institutions established by the UGC. In India, education system is reformed. In the future, India will be one of the largest education hubs. Following are the various stages of Indian educational system shown in Diagram No 2.1.

Diagram No 2.1
Stages in the educational system in India

2.5.2.1 Stages in the Indian Education System:

1) **Nursery or Pre-primary** – This stage includes playgroup and nursery classes where the kids are made to have their first step towards the learning process.
2) **Primary** - Consists of classes of 1 to 5 standards, generally facilitating schooling in morning sections, in most of the above average rated schools.

3) **Middle** – This stage consists of standards 6 to 8.

4) **Secondary** – Consisting of classes 9 and 10; students are made to prepare seriously for their first board exams after 10th.

5) **Higher Secondary** – Consisting of classes 11th and 12th; students prepare for the most vital Higher Secondary board examination.

6) **Under Graduate Diplomas - Diploma** courses in various technical fields last two to three years following the completion of Class 10 or Class 12. A diploma in engineering and technology requires three years of study after Class 10 or 12, depending on the state requirements. Diploma programs in pharmacy and library science are two years beyond Class 12. Diplomas in other technical fields typically require two to two-and-a-half years after Class 10.

7) **Under Graduate** – This degree is pursued by the student according to the choice of subject and the Higher Secondary Boards Examination results made by him, and the number of years may vary accordingly with Engineering or General or Medical courses, as chosen by the student.

8) **Post Graduate** – This course is pursued after completion of the under graduate course, and again the number of years may vary according to the course pursued.

**2.5.2.2 Structure of Higher Education**

Higher education in India follows the three-tier degree structure – bachelors’, masters’ and doctoral-level studies shown in the Figure No 2.2. In addition, certificate and diploma programs are offered at both undergraduate and graduate levels.

**General bachelor’s degrees**, such as Bachelor of Arts, Bachelor of Science and Bachelor of Commerce, involve three years of fulltime study. **Professional bachelor’s degrees** in specialized fields such as Agriculture, Engineering and Technology, Management, Law, Medicine, Dentistry and Pharmacy take between four and five-and-a-half years to complete.
2.5.2.3 Steam of Education

1) **General Stream** – A student may choose to pursue 3 year under graduation course, followed by a 2 year Post graduate course, followed by a 3 or more years Doctoral course if he or she is interested in research line, in the General stream.

2) **Engineering / Technical Stream** - A student may choose to pursue 4 years Under graduation course, followed by a 2/3 of years Post graduate course in this Engineering stream.

3) **Medical Stream** - A student may choose to pursue 5-6 years under graduation course, followed by a 3 year Post graduate course in this Medical stream.

Postgraduate Bachelors’ degrees in a few specialized fields such as education and library science require the completion of a previous bachelor’s degree for admission. These are called **postgraduate degrees**.
I. **Masters degrees** normally take two years to complete and can be either in research or coursework based.

II. **Master of Philosophy** (M.Phil.) programs take one to two years after the completion of a master’s degree, often as a preparatory program for doctoral studies.

III. **Doctoral degree** (Ph.D.) programs differ but normally take at least two years after an M.Phil. or three or more years after a master’s degree. Now-a-days as per the UGC guideline, most of Universities are conducting Ph.D. Entrant Test (PET). Those who qualify for the test are selected after interview, experience and paper presentation at National level with course work should be completed by the candidate.

**2.5.2.4 Universities and its types**

“A university is a place where new ideas germinate, strike roots and grow tall and sturdy. It is a place where creative minds converge, interact with each other and construct visions of new realities. Established notions of truth are challenged in the pursuit of knowledge.”

The British Raj, often working with local generous donor, opened 186 colleges and universities. Starting with 600 students scattered across 4 universities and 67 colleges in 1882, the system expanded rapidly. More exactly, there never was a "system" under the British Raj, as each state acted independently and funded schools for Indians from mostly private sources. By 1901 there were 5 universities and 145 colleges, with 18,000 students they almost all male. The curriculum was Western. By 1922 most schools were under the control of elected provincial authorities, with little role for the national government. In 1922 there were 14 universities and 167 colleges, with 46,000 students. **In the year 1947, 21 universities and 496 colleges were in operation.** Universities at first did no teaching or research; they only conducted examinations and gave degrees to students.

The **Madras Medical College** opened in 1835, and admitted women so that they could treat the female population who traditionally shied away from medical treatments under qualified male professionals. The concept of educated women among medical professionals gained popularity during the late 19th century and by
1894, the **Women's Christian Medical College**, an exclusive Medical school for women, was established in Ludhiana in Punjab.

By 1920 it became the **Aligarh Muslim University** shown in the Picture No 2.7 and was the leading intellectual center of Muslim political activity. The original goals were to train Muslims for British service and prepare elite that would attend universities in Britain. After 1920 it became a center of political activism. Before 1939, the faculty and students supported an all-India nationalist movement.

**Picture No 2.7**  
**Aligarh Muslim University**

Victoria gate, named after the Empress in 1914,

During the 19th and 20th centuries most of the Indian **princely states** fell under the British Raj. The British rule during the 19th century did not take adequate measures to help to develop Science and technology in India and instead focused more on Arts and Humanities. Till 1899 only the **University of Bombay** offered a separate degree in Sciences. In 1899 B.Sc. and M.Sc. courses were also supported by the University of Calcutta. By the late 19th century India had lagged behind in Science and Technology and related education. However, the nobility and aristocracy in India largely continued to encourage the development of Sciences and Technical education, both traditional and western.

**The functions of the universities:**

1. To **seek and cultivate new knowledge**, to engage energetically and fearlessly in the pursuit of truth, and to interpret old knowledge and beliefs in the light of new needs and discoveries;
2. To provide the right kind of leadership in all walks of life, to identify gifted youth and help them to develop their potential to the full by cultivating physical fitness, *developing the powers of the mind* and cultivating right interests, attitudes and moral and intellectual values;

3. To provide society with competent men and women trained in Agriculture, Arts, Medicine, Science and Technology and various other professions, who will also cultivate individuals, imbued with a *sense of social purpose*;

4. To strive to promote equality and social justice and to reduce social and cultural differences through diffusion of education; and

5. To foster in the teachers and students through them in society generally, the attitudes and values needed for developing the good life in individuals and society.

**Types of Universities in India**

In India, “*University*” means a University established or incorporated by or under a Central Act, a Provincial Act or a State Act and includes any such institution as may, in consultation with the University concerned, be recognised by the UGC in accordance with the regulations made in this regard under this Act. Every year, millions of students from within the country and abroad, enter these portals mainly for their post graduate studies while millions leave these portals for the world outside.

Higher Education is the shared responsibility of both the Centre and the States. The coordination and determination of standards in institutions is the constitutional obligation of the Central Government.

The Central Government provides grants to UGC and establishes Central Universities in the country. The Central Government is also responsible for declaring educational institutions as “*deemed-to-be University*” on the recommendation of the UGC.

At present, the main constituents of University/University-level Institutions are **Central Universities, State Universities, Deemed-to-be Universities, Open/Distance Universities** and University-level institutions. These are described in following Table No 2.1.
<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Types of University</th>
<th>Description of Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Central University</td>
<td>A university established or incorporated by a Central Act.</td>
</tr>
<tr>
<td>2)</td>
<td>State University</td>
<td>A university established or incorporated by a Provincial Act or by a State Act.</td>
</tr>
<tr>
<td>3)</td>
<td>Private University</td>
<td>A university established through a State/Central Act by a sponsoring body viz. A Society registered under the Societies Registration Act 1860, or any other corresponding law for the time being in force in a State or a Public Trust or a Company registered under Section 25 of the Companies Act, 1956.</td>
</tr>
<tr>
<td>4)</td>
<td>Deemed-to-be University</td>
<td>An Institution Deemed to be University, commonly known as Deemed University, refers to a high-performing institution, which has been so declared by Central Government under Section 3 of the University Grants Commission (UGC) Act, 1956.</td>
</tr>
<tr>
<td>5)</td>
<td>Open University</td>
<td>There are at present 13 State Open Universities in India, which are single mode institutions, which means they provide education only in the distance mode. These universities cater to people who are unable to pursue regular courses due to various reasons.</td>
</tr>
<tr>
<td></td>
<td>Indira Gandhi National Open University (IGNOU)</td>
<td>It was established in 1985 by an Act of Parliament with the dual responsibilities of (i) enhancing access and equity to higher education through distance mode and (ii) promoting, coordinating and determining standards in open learning and distance education systems. Since then, the IGNOU has undergone rapid expansion and emerged as an international institution in the field of Open and Distance Learning.</td>
</tr>
<tr>
<td>6)</td>
<td>Institution of National Importance</td>
<td>An Institution was established by Act of Parliament and declared as Institution of National Importance.</td>
</tr>
<tr>
<td>7)</td>
<td>Institution under State Legislature Act</td>
<td>An Institution established or incorporated by a State Legislature Act.</td>
</tr>
</tbody>
</table>
In the country, university-level institutions widely differ in terms of their structure and coverage. **These could be sub-divided into six broad groups:** Central universities, State Universities, Deemed Universities, Institutions of National Importance, established under central legislation, Institutions of National Importance, established under state legislation, and Private Universities. The diversity is apparent and it is clear with the help of following Table No 2.2.

**Table No 2.2**  
**All India Growth of Indian Universities**

<table>
<thead>
<tr>
<th>Type of Universities and Institutions</th>
<th>2002</th>
<th>2006</th>
<th>2007</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Universities</td>
<td>18</td>
<td>20</td>
<td>25</td>
<td>40</td>
<td>41</td>
<td>43</td>
</tr>
<tr>
<td>State Universities</td>
<td>178</td>
<td>217</td>
<td>231</td>
<td>234</td>
<td>257</td>
<td>289</td>
</tr>
<tr>
<td>Institutions Deemed to be Universities</td>
<td>52</td>
<td>102</td>
<td>102</td>
<td>128</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Institutions of National Importance (by State Legislation)</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Institutions of National Importance (by Central Legislation) + Other Institutes*</td>
<td>12</td>
<td>13</td>
<td>33</td>
<td>39</td>
<td>39</td>
<td>50*</td>
</tr>
<tr>
<td>Private Universities</td>
<td>-</td>
<td>10</td>
<td>21</td>
<td>21</td>
<td>61</td>
<td>94</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>367</td>
<td>367</td>
<td>467</td>
<td>533</td>
<td>611</td>
</tr>
</tbody>
</table>

**b) University-level Institutions:**

Over past some decades, India has covered a long distance on the path of expanding the institutional capacity in higher education. In the year 1950, the country had just 25 university-level institutions; this figure has gone up to 417 in 2007, - nearly 17-fold increase. The growth of degree colleges during the period has been even larger, nearly 30-times. The number of colleges has gone up from 700 to 25,951. Institute of higher education and their intake capacity^{11} are shown in following Table No 2.3.

**Table No 2.3**  
**Institutions of Higher Education and their Intake Capacity**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of university level institutions</td>
<td>25</td>
<td>177</td>
<td>320</td>
<td>367</td>
<td>467</td>
<td>611</td>
</tr>
<tr>
<td>No. of colleges</td>
<td>700</td>
<td>7,346</td>
<td>16,885</td>
<td>18,064</td>
<td>25,951</td>
<td>31,324</td>
</tr>
<tr>
<td>No. of teachers (in thousands)</td>
<td>15</td>
<td>272</td>
<td>457</td>
<td>488</td>
<td>588</td>
<td>699</td>
</tr>
<tr>
<td>No. of students enrolled (in Millions)</td>
<td>0.1</td>
<td>4.9</td>
<td>9.95</td>
<td>11.2</td>
<td>13.6</td>
<td>14.62</td>
</tr>
</tbody>
</table>
2.6 Pillars of education and their Definitions:

2.6.1 Roles of pillars (stakeholders) in Higher Education

There are many stakeholders of education each of whom needs to play his/her role effectively in order to help all students to learn better and reach their fullest potential. The statements which are student-centered which outline the roles and qualities, we expect of each stakeholder—the student himself, his parents and family, his teachers, his Principal, Institutions / Sanstha’s, the Community, Business and Industry, the Alumni Association as well as the Institute’s Advisory / Management Committee - help the student to learn and grow maturely. With these statements there will be a common understanding of the type of partnerships that can be undertaken and how the respective roles can be fulfilled. At the heart of these statements there is the ultimate aim of helping all students to achieve the “Desired Outcomes of Education”.

Students

a) Value education and want to learn, desiring to get the most out of the experience College/Institution/University offers.

b) Stand firmly by what is right, and understood what is right and wrong from parents and teachers.

c) Respect parents, teachers, and authority have a sound sense of civic responsibility.

d) Work well independently and with others, with purpose, passion and pride in their work.

e) Demonstrate spirit of caring and sharing towards others.

f) Have identity and pride of own Country.

Parents/Grandparents

a) Support college/ Institution in their efforts to educate the students.

b) Take ultimate responsibility for the upbringing of their children/grandchildren and set good examples for them to follow.

c) Instill a sense of responsibility in their children/grandchildren, helping them to become good citizens.

d) Show care and concern for their children/grandchildren by being interested in what they do.

Teachers

a) Inspire love for Nation in students.

b) Care deeply for the character and moral development of students by word and example.
c) Promote teamwork, enterprise, innovation and creativity in students.
d) Motivate, challenge and help students to find the potential within them.
e) Seek to learn continuously.
f) Believe in their calling to influence the young.

**PRINCIPALS**

a) They are effective translators and bring educational policies into practices, interpreting and applying these appropriately to suit college conditions.
b) Lead by example, conveying a deep sense of mission.
c) Build a supportive community by forging links with parents, alumni and the community.
d) Create an environment to nurture growth and learning for staff and students.
e) Facilitate sharing of vision with parents and students.

**INSTITUTIONS / SANSTHAS**

a) Sets the strategic directions for College/Institute.
b) Collaborates with college/institute to formulate effective policies and practices.
c) Supports principals and professors to do an excellent job.
d) Works in tandem with college to inform and clarify policy positions to the public.
e) Supports teachers in helping their students to achieve the Desired Outcomes of Education.
f) Collaborates with other government agencies and NGO’s to formulate effective programmes and practices.

**COMMUNITY/SOCIETY**

a) Welcomes and encourages our young to be involved in the life of the community.
b) Upholds and transmits the right values and attitudes to our young.
c) Recognises the variety of abilities and talents displayed by our young and sees the worth in each child.
d) Offers scholarships and bursaries to students and teachers.
e) Provides support to families and students who are in need of assistance.

**BUSINESS/INDUSTRY**

a) Provides opportunities for the young to experience the world of work.
b) Collaborates with college/institute to formulate effective programmes for the young such as offering work related projects.
c) Supports placement opportunities for the professional development of teachers.
d) Offers scholarships and bursaries to students and teachers.
ALUMNI ASSOCIATIONS

a) Demonstrate loyalty and responsibility for future generations by supporting the college.
b) Provide the college with a sense of history.
c) Act as mentors and role models to students in the college/institution.
d) Offers scholarships and bursaries to students and teachers.

COLLEGE ADVISORY/MANAGEMENT COMMITTEE

a) Serves in an advisory and voluntary capacity to support college programmes, functions and activities.
b) Offers sponsorship and helps the college to raise funds for developmental, infrastructural and enrichment activities to benefit students and staff.
c) Provides links and encourage networking between the colleges on the one hand and the community, industry and parents on the other for mutual benefit and quality education.
d) Acts as role model of active citizenship for students.
e) Provides moral support and encouragement to the Principal and staff.

2.6.2 Definitions:

2.6.2.1 Education

An Education\textsuperscript{12} in its general sense is a form of learning in which knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, research, or simply through auto didactism. Generally, it occurs through any experience that has a formative effect on the way one thinks, feels, or acts.

2.6.2.1. Higher Education

Higher Education\textsuperscript{13} is defined as the education obtained after completing 12 years of schooling or equivalent and is of the duration of at least nine months (full time) or after completing 10 years of schooling and is of the duration of at least 3 years. The education may be of the nature of General, Vocational, Professional or Technical education.
2.6.2.2 University

**University** - According to the University Grants Commission (UGC) Act, 1956, “University means a University established or incorporated by or under a Central Act, a Provincial Act or a State Act, and includes any such institution as may, in consultation with the University concerned, be recognized by the Commission in accordance with the regulations made in this behalf under this Act”. University word is derived from the Latin word “Universitas,” which means “specialized associations between students and teachers.”

2.6.2.3 College, Student and Teacher

**College** - As mention Under Section 12A(1)(b) of the UGC “College means any Institution, Whether known as such or by any other name which provides for a course of study for obtaining any qualifications from a university and which, in accordance with the rules and regulations of such university, is recognised as competent to provide for such course of study and present students undergoing such course of study for the examination for the award of such qualification. These are the institutions established or maintained by, or admitted to the privileges of the University”.

**Student** - “A person who is studying at a university or other place of higher education. An undergraduate or graduate who are studying for a degree at a university etc. such as university students; a medical student. A boy or girl studies at school. A person studies a particular thing. OR One who is enrolled or attends classes at a school, college or university. One who studies something: a student of contemporary dance. ‘student’ includes a person seeking admission as a student;”

**Teacher** is defined as “a faculty / staff assigned the professional activities of instructing pupils, providing knowledge and giving guidance in the subject area of studies in self-contained classes or courses or in class room situations”.

According to **Bertrand Russell**, a Nobel Prize winner “The Teacher, like the artist, the philosopher and the man of letters, can only perform his work adequately if he feels himself to be an individual directed by an inner creative impulse, not dominated and fettered by an outside authority.”
**Programme** - Programme is course of study for which Degree or Certificate is awarded by the University/Institution. A programme of study is the approved curriculum followed by an Individual student such as Ph.D., MS, MBBS, ME, MBA, M.Sc., B. Arch., B.Sc., B.Com., B.A. etc.

**Curriculum**\(^\text{16}\) – In formal education, a curriculum is the set of courses and their content offered at a school or university. Referring to the course of deeds and experiences through which ‘children’ grow to become mature ‘adults’. A curriculum is prescriptive, and is based on a more general syllabus which merely specifies what topics must be understood and to what level to achieve a particular grade or standard.

### 2.7 Objectives and Purposes of Higher Education:

#### 2.7.1 Mission of Higher Education

Education has always been accorded an honored place in Indian society. The basic purpose of education is to create skill and knowledge and awareness of our glorious national heritage and the important achievements of human civilization, possessing a basic scientific outlook and commitment to the ideals of democracy, nationalism, pluralism, secularism and peace along as the cherished goals enshrined in the preamble to the Indian Constitution.

The great leaders of the Indian freedom movement realized the fundamental role of education and throughout the nation's struggle for independence, stressed its unique significance for national development. It is clear with the help of following points.

1. Provide greater opportunities of access to Higher Education with equity to all the eligible persons and in particular to the vulnerable sections of society/country.
2. Expand access by supporting existing institutions, establishing new institutions, supporting State Governments, Non-Government Organizations and Civil Society to supplement public efforts aimed at removing regional or other imbalances that exist at present.
3. Initiate policies and programmes for strengthening research and innovations and encourage institutions to engage in stretching the frontiers of knowledge.
4. Promote the quality of Higher Education by investing in infrastructure and faculty, promoting academic reforms, improving governance and institutional restructuring.

2.7.2 Objectives of Higher Education

A “winner-take-all” mentality pervades much of higher education today. Higher education is of paramount importance for economic and social development of the developing country. Institutions of higher education have the main responsibility of equipping individuals with the advanced knowledge and skills required for positions of responsibility in government, business and the professions.\(^{17}\)

Colleges and universities have been competing in an arms race in which ever-increasing costs too often cancel each other out. Moreover, the competition has tended to focus on erecting impressive facilities, enhancing student amenities and otherwise building institutions’ brands and prestige.

*In India, the specific objectives of higher education are as follows* –

1. To expand the Higher Education sector in all and develop modes of delivery to increase the Gross Enrolment Ratio (GER) in Higher Education to 15% by 2011-12 to 21% by 2016-17 and 30% by the year 2020.

2. To expand institutional base of Higher Education including Technical, Professional and Vocational Education by creating additional capacity in existing institutions, establishing new institutions.

3. To provide opportunities of Higher Education to socially-deprived communities and remove disparities by promoting the inclusion of women, minorities and differently-abled persons.

4. To remove regional imbalances in access to Higher Education by setting up of institutions in unnerved and underserved areas.

5. To provide the right kind of work ethos, professional expertise and leadership in all walks of life, to strive and promote quality and social justice.
6. To enhance plan support for infrastructure and faculty development in the institutions of higher learning and to attract talent towards careers in teaching and research.

7. To create conditions for knowledge generation through improved research facilities in universities and colleges.

8. To promote collaboration with International community, foreign governments, universities/institutions and regional and international institutions for the advancement of universal knowledge and intellectual property rights.

9. To promote innovations, academic reforms, autonomy in institutions of higher learning.

10. To help to develop a higher educational system that specifically aligns with employability needs of corporate and other sectors.

The Role of higher education may range from primary objectives, such as:

a) Enhancing the earning potential,
b) Seeking and advancing knowledge and wisdom,
c) Research and experimentation
d) Economic development of the nation

To more serious secondary objectives like attaining:

a) Mental and spiritual growth,
b) Engaging in quest for the unknown,
c) Facilitating better lifestyle and;
d) Develop scientific outlook.

The journey towards excellence in higher education has begun and we are on the right track but there's still a long way to go.

### 2.7.3 Purposes of Higher Education:

The competition among institutions is focused on things that really matter, such as improving teaching and learning, increasing educational value added and enhancing student outcomes. At present the opportunity for institutions to identify their most important objectives—a particularly useful exercise in the current financial climate. Performance measures based on those fundamental objectives, rather than on prestige, will go a long way towards defusing the costly arms race. While the fundamental values
to which the universities owe their loyalty are largely unrelated to time or circumstance, their functions change from time to time. In the rapidly changing contemporary world, universities are undergoing profound changes in their functions; organizations are in a process of rapid evolution. Their tasks are no longer confined to the two traditional functions of teaching and advancement of knowledge. They are assuming new functions and the older ones are increasing in range, depth and complexity. In broad terms, the functions of the universities in the modern world may be said to be:

1. According to Kapur and Crowley, ‘To train people with strong analytical skills, it is ironical that its own self-analysis is replete with homilies and platitudes, rather than strong evidence’.
2. To enhance the Gross Enrolment Ratio by expanding access through all modes.
3. To promote the participation of those sections of the society, whose GER is lower than the national average?
4. To improve quality of teaching, administration to promote academic reforms.
5. To setup new educational institutions and to expand and improve the capacity and efficiency of the existing institutions.
6. To make use of Technology and e-Governance in Higher Education.
7. Development of Vocational Education and Skill.
8. To develop International Collaboration in the field of education.

2.7.4 Challenges to Higher Education:

The world of higher education is among the fastest-changing and most exciting areas of the global economy. Two observations have to be made at the outset of any statement on higher education in India: First, education, in general, and higher education, in particular, plays a key role in the realization of India’s extraordinary potential and aspirations for economical and technological development. Secondly, precisely because of this potential and its implications for individual advancement, there is an extraordinary demand for higher education among India’s young. After 65 years of Independent, various governments came and gone. Of course they tried to establish new education policies in the system but this is very sad to say aloud that they were not sufficient for our country. Still we are facing a lot of problems and challenges in our Education System.
The ongoing research found that rapid economic growth will lead to a surge in demand for more quality Engineers and Management Graduates. Along with the quantity of graduates, the quality of education will be another focus area for the Indian higher education system. With the entry of foreign players, it is expected that the competition will intensify and correspondingly improve the quality of education.

Our imperfect world is advancing relentlessly towards uncertain future scenarios, and we must try to redirect it towards sustainability, that is, towards a new way of doing things in order to improve our environment while at the same time achieving justice, social equality and economic stability and political dynamics of higher education in India. However change is impossible without learning, just as learning is impossible without change. We will analyze the need for a new form of education and identify the specific challenges that higher education faces now-a-days. They are as follows:

1. **Quality and Excellence in Higher Education**

   Quality depends on all functions and activities of education, teaching and academic programs, research and scholarship, staffing, students, infrastructure and the academic environment. It also requires that higher education should be characterised by its international dimensions exchange of knowledge, interactive networking, mobility of teachers and students. Instead of concentrating on quantity, these institutions should concentrate on quality. The approach of doctoral research in social sciences needs to be more analytical and comparative and be related to society, policy and economy. Yet, the government has not able to decide to improve quality or go by quantity. Because the government had announced the setting up of 51 public-funded higher education institutions – including eight Indian Institutes of Technology (IITs) and seven Indian Institutes of Management (IIMs) during the 11th Five Year Plan period from 2007-2012.

   The 12th plan (2012-17) will go slow in adding more institutions. “Ensuring quality in higher education to compete with the global best would be the objective in the 12th plan and not opening a number of new institutes,” said an HRD ministry official\(^{18}\). The 12th plan will add four new IITs but no new IIMs. Fourteen innovative universities and 374 model colleges already announced in the 11th plan but could not
be established. Government has already decided by the year 2020; 800 New Universities and 40,000 New Colleges will be established. But the fillip side is that in current institutions yet 40% of the faculty posts are still vacant.

Therefore, academic and administrative audit should be conducted once in three years in colleges by external experts for ensuring quality in all aspects of academic activities. The self-finance colleges should come forward for accreditation and fulfill the requirements of accreditation.

2. Regulation and Governance of Higher Education

The department of Higher Education is empowered to grant deemed university status to educational institutions on the advice of the University Grants Commission of India, under Section 3 of the University Grants Commission (UGC) Act, 1956. The department is engaged in bringing world-class opportunities of higher education and research to the country so that Indian students are not found lacking when facing an international platform.

Recognition or accreditation of courses of study is under the authority of a set of professional councils established by statute and other autonomous coordinative or regulatory bodies established or recognized by the University Grants Commission (UGC); State governments and so many other bodies’ setup by the center governments along with HRD Ministry. So there is no proper coordination between UGC, Various bodies of AICTE and State Government for enhancing institutional autonomy and transparency. Most the work of HRD Ministry is operated through over 100’ autonomous councils under these bureaus some of these are as follows:

1. Quality Council of India (QCI)
2. Distance Education Council (DEC)
3. National Council for Teacher Education (NCTE)
4. Indian Council of Agricultural Research (ICAR)
5. Bar Council of India (BCI)
6. Scientific Institute and Research Organizations (SIROs)
7. National Council for Teacher Education (NCTE)
8. Rehabilitation Council of India (RCI)
9. Medical Council of India (MCI)
10. Pharmacy Council Of India (PCI)
11. Indian Nursing Council (INC)
12. National Council for Indian Education (NCIE)
13. Dental Council of India (DCI)
14. Central Council of Homoeopathy (CCH)
3. Privatization of Higher education

In any nation, education is the basic necessity or the socio-economic development of the individuals and the society depends upon education. Swami Vivekananda quoted "Education is the manifestation of perfection already in men". Education is compulsory for each and every individual who wants to succeed in every walk-of-life. While India’s economy continues to thrive, there is increasing concern that future growth may become constrained by limited access to higher education. Government has recognized the fact and has made massive expansion plans for Higher Education sector under the Twelfth Plan (2012-2017). However government resources alone cannot take forward the expansion initiatives and hence the corporate and private sector as well as foreign collaboration is needed to invest to bridge the demand-supply gap in higher education. The international experience also, enrolment of 20% to 25% is a necessity for sustainable economic development, and the foremost priority needs to be placed on enhancing Gross Enrolment Ratio to 'this threshold level.'

In developed countries on the other hand, the percentage of the students opting for higher education is nearly 90%. As compared to it India’s 23% of the population is highly educated. If India dreams of becoming a developed country in the near future, it is extremely essential that more and more students opt for higher education. Improved quality of education as first priority should be offered to the majority by the government authorities with sincere political will.

The most crucial issue is the lack of adequate funds in higher education. The funds have increased from 1.2% to 3.6% in the recent years but it is still not 6% as it should be. If India wants to progress and assert itself as a developed nation, educating the youth is the key to open this door. Also, privatization of higher education is absolutely necessary in a big country like India as government alone is helpless to do so.

4. Industry and Academia association-
Industry and academia need to stop working in isolation from one another if they want to see tangible benefits for themselves and the nation. The industry has to realise that without a rich source of human resources they cannot sustain themselves. The best solution is to train students with skills that the industry is looking for. “The industry’s complaint is that most graduates don’t have the skills that they are looking for,” complaining most of the Indian industries so that “it is the responsibility of the government and academia to provide them with excellent skills human power.”

*Formula is (knowledge + skills+ global professional skills = good jobs)*

5. **Status of Academic Research Studies**

Today in the world driven by *Intellectual Property*, there is an increased interest in collaboration in the area of research. Though academicians in most good institutes engage in research, collaboration in this area is possible only if the industry has a need for research.

Though the goal of research is to create new knowledge, the purpose of research in a company is to create new knowledge which other parts of the company can use to improve the business. Research is typically not a business or a profit center but a long term investment, which helps a company, generates more revenue and profits.

If we see the number of researchers engaged in Research and Development activities as compared to other countries we find that we have merely 119 researchers, whereas Japan has 5287 and US has 4484 researchers per million of population. Even in absolute terms, number of researchers in India is much smaller compared to US, China, Japan, Russia, and Germany. Numbers of doctoral degrees awarded in all subjects are 16, 602 out of which 6774 are in Arts and 5408 in Science and rest in others (Professional Subjects). India has a little over 6000 Doctorates in Science and Engineering, compared to 9000 in China and 25000 in US.

6. **Public Private Partnership (PPP)**

PPP is the most essential to bring the quality in the higher education system. Governments can ensure PPP through an appropriate policy. Under the National Education Policy (NEP) only Voluntary organizations (VOs), NGOs and Trusts can
undertake activities in higher education to the exclusion of individual and private companies. The private sector has been coming in a big way in the area of higher education and technical education, in recent years.

Institution of higher learning in the private/public sector (other than university) are considered by the University Grants Commission (UGC) for recognition as ‘deemed university’ if they meet the requisite standards.

UGC and Ministry of HRD should play a major role in developing a purposeful interface between the Universities. We have to be optimistic that private-public partnership and the Industry interface will take place in the field of education at all levels, and particularly in the backward regions, which is the need of the hour. To achieve excellence, we thus need to create a real partnership between government, educators and industry– Partnerships that can provide our High-Tech industries with skilled workers who meet the standards of their industry.

7. Visionary Leadership –

A visionary leader is a person who understands that universities play a key role in ensuring the success and sustainability of their communities. Visionary Leadership is a quality that often transcends governance. Effective leaders maintain a skill set that allows them to guide a team or organization. Some aspects of leadership can be taught, but a natural inclination to lead others always helps.

India realizes, like other nations of the world, that humanity stands today at the head of a new age of a large synthesis of knowledge. In this new age, great cultural achievements of the past have to be recovered and enriched in the context of the contemporary advancement. So that humanity can successfully meet the evolutionary and revolutionary challenges and bring about a new type of humanity. Society is marked by integrated powers of Physical, Emotional, Dynamic, Intellectual, Ethical, Aesthetic and Spiritual potentialities under proper guidance.

8. Affiliation of University with Colleges / Expansion of University

We need more universities because we have a large number of colleges and admissions; and present number of universities are too less. The average number of
affiliated colleges per university is 300. For example Osmania University has 901 colleges affiliated to it while 811 colleges are attached to Pune University. Rashtrasant Tukadoji Maharaj University, Nagpur has 800 colleges. Rajasthan University and Mumbai University has 735 and 711 colleges affiliated respectively. This phenomenon negatively affects the academic quality of the University.

It is proposed in the 12th FYP to lower the burden of affiliation on the universities and facilitate greater autonomy and freedom of growth to college by establishment of “College Cluster Universities” by clustering a minimum of 50 colleges, in the surrounding area of the city or district, to make a university of its own independent establishment and relevance.

**Academic Reforms:**

Providing incentives through funding for academic reforms like introduction of semester system, grading, choice-based credit system, examination reforms, accreditation etc. can go a long way towards enhancing quality. Emphasis shall also be placed on higher education institutions so that they are facilitated and empowered to address the challenges of economic and social development planning.

9. **Regional, Disciplinary and Gender Imbalances:**

The growth of higher education institutions is not uniform all over the country in regional, disciplinary and gender perspective. Several questions of equity are to be addressed in relation to the enrollment in higher education. These relate to the rural-urban, inter-regional, Inter-state and inter-caste disparity. They also relate to women, minorities, physically disabled and other marginalized segments of society.

There is wide disparity in the GER of higher education across states and the **Gross Attendance Ratio (GAR)** in urban and rural areas, and gender- and community-wise:

- **Inter-state disparity** - 47.9% in Delhi vs. 9% in Assam.
- **Urban-rural divide** - 30% in urban areas vs. 11.1% in rural areas.
- **Differences across communities** - 14.8% for OBCs, 11.6% for SCs, 7.7% for STs and 9.6% for Muslims.
- **Gender disparity** - 15.2% for Females vs. 19% for Males.
10. Staffing

In the next few years, the ministry plans huge investments to set up IITs, IIMs and 16 new central universities with international quality research facilities and faculties. “Many new universities have started from temporary campuses with just a few courses because of faculty shortage and space,” a senior University Grants Commission (UGC) official said.23

The 12th plan would also see a higher allocation of funds to support high-quality research in educational institutions and incentives to have more Ph.D. holders, whose number has been saliently increasing in recent years. The proposal, agreed by the ministry, will soon be submitted for approval to the planning commission, which is mandated to finalise the 12th plan for India.

11. Studying abroad

The scope of studying abroad has expanded over the years in India. Because of globalisation, students can now access the best of universities across the world. Studying abroad definitely provides students a macro-understanding of the world and keeps them highly competitive.

You can improve your understanding of global culture, economics and their inter-dependencies. You gain a different view of international affairs, politics and social issues. You may develop a new academic interest or perspective on your major while you are abroad. A stint at a university abroad allows you to study subjects that are not available at your home country. It gives you more than a nice boost to your resume and improves your post-graduate employment prospects, particularly if you’re considering a career in business, international affairs or government services.

2.7.5 Elements of Higher Education –

Education is a dynamic and a continuously evolving process. The university is not simply an institution for instruction. Rather, university campus is a huge playground where the student players try to excel each other to be an integral part of the global environment.
Any university is to impart the right kind of education resulting in the provision of suitable culture where the stakeholders can successfully achieve their expected goals. The other remaining important elements which constitute any university are:

1. Educational programmes, offerings and services.
2. Teaching standards.
3. Educational level of the university workforce.
4. Mobilization of resources.
5. Student and Staff mobilization.
7. Focus on the future.
8. Curricular revisions.
9. Examination reforms.
10. Research scholarship.
11. Students-Teacher ratio.
12. Recruitment and retention of quality faculty.
13. Options in courses and careers.
14. Physical facilities (i.e. Infrastructure, Lab, Library) and;
15. Working/Cross culture of the university campus.

The quality of education in the Indian universities can be judged on the basis of each of the above cited fifteen criteria. Many universities rely on the old governance system. Therefore, there is less accountability on the part of the university and that is the main reason for poor performance. At present, we do not find transparency in the operation of governance.

2.8 Issues and Expectations

Higher education in India has expanded rapidly over the past two decades at the opposite last a few years, the number of vacant positions increased a lot, may be, due to slowing down of the Indian economy. Voluntary accreditation seems to have no takers from amongst private providers and apparently serves little purpose for any of its stakeholders.

The expansion of higher education system in India has been chaotic and unplanned. The drive to make higher education socially inclusive has led to a sudden and dramatic increase in numbers of institutions without a proportionate increase in material and intellectual resources. As a result, academic standards have been exposed. There are many basic problems facing higher education in India today. These include inadequate infrastructure and facilities, large vacancies in faculty positions and poor faculty, outmoded teaching methods, declining research standards, unmotivated students,
overcrowded classrooms and widespread geographic, income, gender, and ethnic imbalances. Many colleges established in rural areas are non-viable, are under enrolled and have extremely poor infrastructure and facilities with just a few teachers. Apart from these, the system of higher education has met several setbacks. Concerns of equity are central to the expansion of higher education in India. Historically, education in India has an elitist and upper cast-centered basis.

The highly qualified, skilled and knowledgeable manpower is a fundamental requirement to India becoming an economic super power till 2030. Every person always interested in earshot about some “out of the box” thinking since meeting the concerns, expectations, and resolving the issues.

2.8.1 Important Issues of Higher Education:

a. The WTO pushing the trade in services will have far reaching costs in India, particularly for the remote locations and weaker sections of the Indian society. Therefore, WTO the World Bank and GATT policies on higher education need serious consideration, National interests of India must be safeguarded.

b. Quality of education delivered in most institutions is very poor. While India has some institutions of global repute delivering quality education, such as IIMs and IITs, we do not have enough of them.

c. Most of the universities have not yet introduced new techniques such as e-Governance and e-Learning or ICT’s.

d. At present very limited course options are offered by various universities and institutions. New areas are open due to global economy but area related courses are not yet introduced.

e. Poor quality of graduates and lack of skills for employability because:

i. Only 7% of Graduates are directly employable.

ii. Only 15% of Engineering Graduates are directly employable.

iii. Skill building is really very crucial to ensure employability.

f. Most of the education institutions esp. in states such as Maharashtra, Karnataka and states in South India are owned by politicians – Education system which is highly regulated by the government has been set up to benefit politicians.
g. Lack of attractiveness in teaching as a profession – there is clearly a lack of educated educators – Teaching is not an attractive profession – it’s a last choice in terms of career.

h. India’s large size, long history and diverse culture and the complicated nature of Indian polity and policy process make Indian higher education a very complex enterprise.

2.8.2 Expectations from Stakeholders:

Following are the expectations of stakeholders of Indian higher education:

a. Complete transparency should be maintained in the working of Executive or Academic Bodies and other Governing Councils of the Universities.

b. Improving the interrelationship of all stages and levels of education should be a long term policy goal.

c. Rural, urban and gender disparities must be kept in mind at the time of policy making, planning and implementing.

d. Transparency in the functioning at all levels is required, for those committing wrong are deterred.

e. New models for higher education including the following aspects need to be created and adopted in the country:

   I. Specialized traditional Universities,
   II. Women’s Universities,
   III. Technology based i.e. Technical Universities,
   IV. College Cluster Universities, and
   V. Corporate Universities.

f. There should be uniformity, as far as possible, in the standards of the courses, academic calendar and the examination system of all Universities throughout India or at least in states.

g. The Universities and other Institutions of higher education can design their web sites for offering online education, examination and results, and certification worldwide. E-Governance appears to be a fast emerging mode of global entry at the current time.

h. The Universities and National Institutes of higher Learning should design their courses in collaboration with industry and such courses should be updated regularly, e.g. every two or three years, according to need of industry’s demand.

i. Academia interrelating with industry; some expectations for which are:
I. Undergraduate industry-related courses should be structured with care, exposing the students to industry problems and requirements;

II. Undergraduate students should take up industry-related projects and come out with viable solutions;

III. Industry personnel should be associated in curriculum development;

IV. Industry personnel should be invited for extension lectures;

V. Faculty should visit industries and get acquainted with current problems;

VI. Better contact with alumni to evaluate teaching methodologies and new demands;

VII. Vocationalization of most of the degree programmes;

VIII. Establishing association for getting feedback from industries.

j. Curriculum should be designed in such a way, that it must include sports, hobby classes as well as vocational skills, soft skills, and communication skills development programs, entrepreneurship development modules, specialization wise clubs and committees of students, practical assignments related to their field, so as to ensure continual improvement.

k. Too much power vested in single institutions that regulate e.g AICTE – eg. Policy, licensing, funding, curriculum etc. Need to disintegrate to perform specific key functions.

2.9 National Strategy and Policies of Higher Education

India has the potential for extending frontiers of knowledge in all disciplines. Indian Higher Education has gone through a phase of unprecedented expansion, with huge increase in the volume of students and also increase in the number of institution and quantum jump in the level of public funding. The System of higher education in India has seen an impressive growth since independence. The number of universities has increased from 25 in 1947 to 677 in 2013. The number of colleges has increased from 700 in 1947 to 35539 in 2005. The total enrolment increased from 0.1 million in 1947 to 21.80 million in 2013. The colleges that are affiliated to 131 universities constitute the bulk of higher education system in India, which contributes around 89% of the total enrolment.
Higher Education System in India as compared to developed countries needs substantial improvement. The percentage of students taking higher education in India is hardly about 13% whereas the same is varying between 28 to 90%, across the world. The lowest % being 28% and the same is as high as 90% in developed countries.

At one end we claim that India would rank 3rd among all countries by 2020 in education. If we observe overall ranking of relevant institutions, it’s seen that in the year 2000, out of 500, there were two Indian Universities / Institutes which were featured in the list, and one institution is from China. Now almost after a decade in 2010 the tables have been changed with only 1 institution is from India being featured and 32 institutions are featured from China!!

*Budget allocation* by Govt. of India as per 2012 plan is about 6% in terms of GDP actual as used only 3.5%, which is not going to be adequate, and therefore allocation must be made appropriately, i.e. minimum 10% in order to improve the scenario. Basic education must reach to maximum number of children from different strata of the society so that they are eligible to pursue higher education.

Government should also provide sufficient funds, annual schemes for unaided institution for enhancing overall support. Some specific programs of higher education should be developed for respective sectors, and companies of these sectors must assure employability through internships / projects and final placements for win-win situation.

These are some of the points if we practice in a near future for increasing percentage of students seeking higher education, the scenario will certainly be increased and students in turn will start adding value to the corporate world and towards the growth of our nation in the near future.

### 2.9.1 National Policies

From the early 20th century, there have been several high level commissions set up to provide policy orientation to the development of higher education in India.

The University Education Commission, presided over by Dr S. Radhakrishnan, in its report in 1949 recommended that university education should be placed in the Concurrent List so that there is a national guarantee of minimum standards of university education. The constituent assembly did not agree to it. It was much later,
in 1976 that education was made a concurrent subject with the 42nd Amendment of the Constitution.

The Kothari Commission (1964–66) examined various aspects of education at all levels and gave a very comprehensive report full of insight and wisdom. This report became the basis of the National Policy on Education, 1968. With this, a common structure of education (10+2+3) was introduced and implemented by most states over a period of time.

The National Policy on Education (NPE), 1986 was put in place. It was noted in the preamble to the policy that education in India stood at the crossroads, and neither normal linear expansion nor the existing pace and nature of improvement of the situation would help.

On review now, one sees that many of the recommendations of the NPE, 1986 read with Programme of Action (PoA), 1992 have been only partly fulfilled. Moreover, there has been no effort to modify the previous policy prescriptions or to develop a new one. After the economic reforms were undertaken in the early 1990s, their influence on development of higher education has been ignored. With the economic reforms of the 1990s, the private sector has come to occupy a central role in the economic development of the nation.

The Yaspal Committee in June 2009 has recommended a single, all-encompassing higher education authority since it considered all higher education including Engineering, Medicine, Agriculture, Law and Distant education as an integrated whole. This Committee noted that there were 13 Professional Councils created under various Acts of Parliament to promote and regulate specialised areas of education and underlined the need to bring them under a national apex body for bringing greater coordination and integration in the planning and development of higher education system including research as already envisaged in the National Policy of Education (1986) and the Plan of Action (1992).

The Yaspal Committee known as the Committee to Advise on “Renovation and Rejuvenation of Higher Education” submitted its report and advised a different structure and role for the regulatory authority than the one suggested by NKC.

There is a need for a holistic review of the instruments currently available for managing the higher education system such as the University Grants Commission
(UGC) Act, the All India Council of Technical Education (AICTE) Act, and so on, which have become outdated in the present context. In this context, it is important to develop a new national policy framework for higher education in the current and emerging contexts. Such a policy framework should not be developed by political processes, but by an independent, high-powered commission.

The National Knowledge Commission (NKC) is a high-level advisory body to the Prime Minister of India, with the objective of transforming India into a knowledge society.

A NKC was accordingly set up to prepare a blue print to tap in to the enormous pool of knowledge that confidently faces the challenges of 21st century. Some other important recommendations of NKC on expansion include change in the system of regulation for higher education, increase in public spending and expanding sources of financing and establishment of 50 national universities.

The present regulatory system in higher education is flawed in some important respects. The barriers to entry are too high. The system of authorising entry is cumbersome. There is a multiplicity of regulatory agencies where mandates are both confusing and overlapping. The system, as a whole, is over-regulated but under-governed. NKC believe that there is a clear need to establish an Independent Regulatory Authority for Higher Education (IRAHE). The IRAHE must be at an arm's-length from the government and independent of all stakeholders including the concerned Ministries of the Government.

“The purpose of creating an IRAHE is to separate these functions. The proposed IRAHE shall be responsible for setting the criteria and deciding on entry. It would, in addition, license agencies to take care of accreditation. The role of the UGC will be limited to disbursing public funds. Issues of access will be governed by state legislation on reservations and other forms of affirmative action. And, professional associations may, in some institutions set requirements to determine eligibility for conducting a profession”.

The NKC suggested following recommendation\textsuperscript{26} for changing regulation system in higher education:

a. The IRAHE would have to be established by an Act of Parliament, and would be responsible for setting the criteria and deciding on entry.
b. It would be the only agency that would be authorized to accord degree granting power to higher education institutions.

c. It would be responsible for monitoring standards and settling disputes.

d. It would apply exactly the same norms to public and private institutions, just as it would apply the same norms to domestic and international institutions.

e. It would be the authority for licensing accreditation agencies.

f. The role of the UGC would be re-defined to focus on the disbursement of grants to, and of, public institutions in higher education. The entry regulatory functions of the AICTE, the MCI and the BCI would be performed by the IRAHE, so that their role would be limited to that of professional associations.

The Committee accordingly proposed to create an apex body to subsume academic functions of all professional bodies to be called The National Commission for Higher Education and Research (NCHER).

Indian government have made provision to have a apex body to regulate the higher education they submitted the bill in the parliament of India “THE HIGHER EDUCATION AND RESEARCH BILL 2011” their motto is “To promote autonomy of higher educational institutions and universities for free pursuit of knowledge and innovation and to provide for comprehensive and integrated growth of higher and research keeping in the view the global standards of educational and research practices and for that purpose to establish national commission for Higher Education and Research for facilitate determination, co-ordination, maintenance and continued enhanced of standards of higher education and research including university education, vocational, technical, professional and medical education other than agriculture education and for matters connected therewith or incidental thereto”. The main provision of the bill is to Establishment of National Commission for Higher Education and Research.

Finally, on 21st December 2011, the Union Cabinet has given its nod for the establishment of NCHER, an overarching body in higher education to oversee universities and technical institutes. It will subsume all existing regulatory bodies, including UGC, AICTE and Council of Distance Education. These agencies monitor various components of higher education in the country.
2.9.2 National Strategies:

All over the world, the profile of higher education is changing. Globalization and Liberalization have open up global market for employment and students all over the world are eager to grasp it. The need for students to become “global citizens” is recognised by all education providers.

In some developed country institutions, higher education is being known as a profit activity, with campus being set up abroad, as part of the new economic need. For some, enrolling international students is proving to be a source of revenue that helps to balance the dwindling budgets of institutions. The student is becoming the driving force for promoting international education.

India is not yet ready for accepting foreign universities for providing education in India. The country is still debating how to react to the process of internationalisation. A new scheme is being formulated in the latest Five-Year Plan for India’s development.

The role of international partnerships in India’s international strategy is constrained by domestic considerations. With growing demand for higher education and a low gross enrolment rate of about 19.4%, the national concern is to expand the available pool of higher education institutions. But the resources required are beyond available budgets.

Increasingly, the country is appealing to private and international higher education providers to add to national capacity. The market is economically attractive to private higher education providers. But the doors for entry of foreign higher education institutions are still not fully opened. It could be useful to look at all means of partnerships at the government level.

Despite many new national missions and reform agenda, by both the central and state governments with private sector intervention, the higher education sector is in a state of complete change. We have tremendously enhanced capacity; we lagged in quality, given inadequate autonomy to our Universities. We are in the 21st century with a mid-20th century regulatory architecture. During this time, we have seen countries like China, Korea and Singapore, transform from developing to advanced economies in a decade due to strategic planning and a larger vision that correlated economic development to transform in the education sector, in particular higher education and research, to become globally competitive. 

In this context, the Department of Higher Education has endeavored to create the 'Vision 2030' for Higher Education in India. The Vision is aspiration and futuristic, looking at India as a globally dominant economy, with a high quality higher education sector that leads and fulfills the needs of society.

The number of people entering the higher educational system is rising and the profile of students is changing. Gigantic competition, unemployment and changing patterns of work bring new necessity and a much greater emphasis is on lifelong learning and up-skill. The nature of the learning community and the modes of teaching and learning will also change significantly over the coming years. These changes will be supported through innovative approaches to research-led teaching and learning, curriculum design, student, staff assessment and a quality assurance system, all of which will reflect a new emphasis on fostering creative and innovative minds. So, Government of India has planned his national strategies keeping in the mind of 2030 India becoming of the important country in Higher Education. Following strategy determined:

**Following are some of the strategies for higher education which have to be adopted:**

**Higher education in a Changing Society** – Binding higher education to wider society, and at how higher education needs to change over the coming decades to meet new economic, social and culture challenges. It describes the environment within which the higher education system operates and the challenges to which it must respond. In building a strong, well-resourced and renewed higher education system, we need to leverage the strength.

**Planning for future demand** – We need to plan the structure; capacity and relationship that the higher education system will need to meet the expanding demand. It also deals with the growing trend for Indian student to study abroad and foreign student study in India and at ways in which student and staff will benefit from increased cooperation and interaction with institution in other countries on teaching, learning and research.

**Faculty Mobility**

One factors which promotes interaction and also quality of teaching. It suggested faculty of one institution to another for a period of 6 months to 2 years needs to be facilitated. Overseas faculty as well as experts from industry should be appointed as visiting faculty in the place of local faculty; such provisions should be made by government. Faculty
requires maintaining creativity, adaptability and quality. The economic trail of liberalization and globalization demands it.

**Students Mobility**

It is one of the factors for quality improvement. Some of the following points have to be considered for student mobility:

a) Opening up admission to students of other states with a minimum of 20% intake from other states.

b) Recruitment of 20% faculties from other states universities.

c) Provide university with beautiful atmosphere so that international students would join Indian Universities.

**Implementation of e-Governance for Good administration**

Higher education sector is still lacking behind in automation and use of ICT in governance. The twelve Five Year Plan should target automation in administration and e-Governance in colleges/Institutions and Universities. Private funds can be corporate to develop the national model for all universities to become core university model like core banking throughout the nation. Private funds bring in e-Governance and ICT, an end-to-end solution to facilitate paper-less administration and transparency in the Institutions.

**Technology-savy staff**

With technology dominating the way, we delivered in the modern world, having technosavy staff is essential. Even if some of educational staffs are not so great with new technology, you can always train them, so that they are comfortable and competent. However, there is no substitute for employees who are passionate about new technology and new social media. It can help you to understand. They must equip the latest gadgets; they work as arms for development of Institutions. So it’s time to appoint of techno-savy staff at levels of higher education including sectional officers and Educational officers.

It’s to create authentic database for the greater good of the Indian higher education system. To create authentic database necessary steps should be undertaken to set up an integrated mechanism for collection and analysis of information that is relevant to education policy. Some measures:

i. National Data Bank on Higher Education.

ii. ICT Integration for digital repository in University and College Libraries, e-Content development.

iii. E-Governance for Higher education in Universities and Colleges.
Single National policy for higher education -

We believe that there exists a major policy deficit in the country that is curbing the development in higher education. There are a number of committees and commissions set up like the National Knowledge Commission and the Yashpal Committee at present, the implementation of the recommendations of these commissions happens at snail's pace. There are so many Bills pending before the Parliament and the most important among them is the NCHER Bill, 2011. The other two ambitious Bills are pending in Parliament — the Universities for Research and Innovation Bill, 2012 and the Foreign Universities Bill. The former allows for the setting-up of new universities by the government or private bodies – domestic or foreign – and for the classification of some of the existing universities as research and innovation universities. The second Bill seeks to make it easier for foreign institutions to set up shop in India.

More than these Bills, what is required is a comprehensive plan to review the functioning of existing universities. If enacted, the Bill will bring about sweeping changes in the regulatory mechanism of higher education. Higher education will assume a new dimension and a new direction. The time as historic, momentous, path breaking as the NCHER will herald a new era in administering higher education here afterwards. There is a fundamental assumption in replacing the existing system of higher education. The assumption is that the present system has failed to deliver the goods. It may be re-coined that the present system may not stand up to the aspirations of rapid expansion of higher education qualitatively.

2.10 Recent Developments in Indian Higher Education

Higher education has received a lot of attention in India over the past few years. Following are the reasons for this recent focus.

1) Country’s weak higher education system is being blamed for skill shortages in several sectors of economy. 28

2) Reservation quotas in higher education institutions, particularly the more reputed ones that provide access to high status and best-paid jobs became a highly divisive
issue, central to the policy of inclusive growth and distributive justice, and hence politically very important.

3) In the backdrop of the first two developments, it began to be argued that the country would not be able to sustain its growth momentum and maintain competitiveness unless problems with higher education are fixed.

4) Demand for higher education continues to outpace the supply due to growing population of young people, gains in school education, the growing middle class and their rising aspirations.

5) It is widely believed that technological advances and a shift in demographic provide India with a window of opportunity to engage its huge pool of human resources productively, and become a leader in both the rapid expanding sectors of services and highly skilled manufacturing.

6) In 2012 the hike of 21.7 percent in allocation of funds towards implementing of Right to Education - Sarva Shiksha Abhiyan and 29 percent for Rashtriya Madhyamik Shiksha Abhiyan.29

7) RS. 1000 crores for skill development of students is a step forward to incorporate the practical aspect of education, and is a well appreciated initiative.

8) On a pilot basis PPP schemes for 2,500 schools has been announced; which is a big move in bringing the private players to play their role in reinforcing the strength of Indian education set up.

9) The lack of progress on the Foreign Educational Institutions (Regulation of Entry and Operations) Bill30 is the biggest disappointment for the whole education sector. There is need for immediate progress on it to bring clarity.
Reference:

2. http://mhrd.gov.in/rte, Department of School education and Literacy, MHRD, Govt. of India.
3. Allyn and Bacon,(1993),Longstreet WS, Shane HG. Curriculum for a new millennium. Boston, MA
14. The University Grant Commission, ACT 1956, chapter 1, Section2(f), pp6
15. The University Grants Commission Act, 1956, in Section 12A(1)(b) & (g), pp12
18. Chauhan Chetan, (2011) “Problems force shift in govt’s higher edu plan”, Hindustan Times, New Delhi, Published on 21st November 2011
20. Industry, Academia Must Work in Sync for Reaping Benefits” (2014),The New Indian Express, Article Published on 13th February 2014
21. Singh J D, Rajasthan, India “Higher Education in India – Issues, Challenges and Suggestions”
23. Chauhan Chetan, (2011) “Problems force shift in govt’s higher edu plan", Hindustan Times, New Delhi, Published on 21st November 2011
24. Report, [2003], HIGHER EDUCATION IN INDIA: ISSUES, CONCERNS AND NEW DIRECTIONS
28. Agrawal Pawan (2008), Indian Higher Education- envisioning the future, pp 234 point 1 to 4
29. Mittal Ashok, {2012} Chancellor, Lovely Professional University, Indian Higher Education; hopes from 2013.