ABSTRACT

The World education is highly indebted to the four ancient pioneer Universities – Nalanda University in India, Gundishapur University in Iran, Al-Qarawiyyin University in Morocco and Al-Azhar University in Egypt. During the period in between 415 A.D. to 1200 A.D., India achieved a remarkable position in respect of education and culture, with the emergence of a number of higher learning institutions. Nalanda was one of the most popular names among them where systematic ways of higher education prevailed. Similarly Gundishapur of Iran and Al-Qarawiyyin & Al-Azhar of Africa are the icons of Islamic tradition, culture and quality education by achieving incredible stands in their territorial spaces.

The questions are like that – what were the pattern, structure and other related factors of Global higher educational institutions prevailed in the period of 415 A.D. to 1200 A.D.? Which University was scholastically brilliant in comparison to one another of that period? This paper solely wishes to seek the answers of these questions.

The chief objective of this paper is to trace the systems of higher education prevailed in the above mentioned four Universities like Nalanda, Gundishapur, Al-Qarawiyyin & Al-Azhar and to make a comparative study. The present study is historical and analytical in nature. Historical

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and sociological approaches have been adopted for this analysis. It has been found that Nalanda, Gundishapur, Al-Qarawiyyn and Al-Azhar - all had significant role in the history of World higher education but in respect of academic brilliance, Nalanda was truly unique and exceptional.

**Key words:** World education, Quality, Higher learning institute, Academic brilliance.

1. Introduction

In the said time period (415 A.D. – 1200 A.D.), a very few number of higher learning institutions were present in the world. Four pioneer Universities like Nalanda University (415 A.D. – 1200 A.D.) of ancient India, Gundishapur University (531 A.D. – 832 A.D.) of ancient Iran, Al-Qarawiyyn University (859 A.D. – still existing) of Morocco and Al-Azhar University (972 A.D. – still continuing) of Cairo, Egypt were among them. India & Iran of Asia and Egypt & Morocco of Africa are the pioneer lands with their glorious system of education in the ancient World. Before the Aryans, India bears an identity of progressive civilization and educational approach which were the fundamental resources of its self esteem. As a sacred place of education and culture this land earns the capability for the insurgence of a new humanist essence for which the education of this country is unique and multifarious. On the other hand, Iran is such a land where one of the oldest continuous major civilizations of the World with historical and urban settlements dating back to 7000 B.C. From the ancient period, the country attached great importance to education and this issue was highlighted with the sovereignty of Zoroastrianism over this territory. Egypt had a legitimate and incredible stand in the history of World civilization. Morocco also occupied another celebrated attention especially after the beginning of Islamic rule. These lands were especially recognized as the lands of knowledge exercise.

The aforesaid institutions were recognized as the symbol of highest shore of knowledge in their time that the learners from the various parts of the world were attracted and came to these higher learning institutions to satisfy their urge of knowledge. In the history of human civilization, it is found that the formal education was started through religious institutions. Nalanda started its journey as a centre of Buddhist religion and culture, Al-Qarawiyyn & Al-Azhar were started
their journey with Islamic theology and culture whereas Gundishapur was exceptional; it was mainly started as a centre to accelerate the scientific movement of Iran.

This paper is an attempt to make a comparative evaluation of these significant ancient centers of higher education by focusing on their features and quality.

2. Objectives of the Study
i) To analyze the nature and quality of higher education prevailed in the above mentioned Universities like Nalanda, Gundishapur, Al-Qarawiyyin and Al-Azhar in the period of 415 A.D. to 1200 A.D.
ii) To evaluate the distinguishing features of each University by comparing their system & structure of education.
iii) To find out the exceptionally outstanding higher learning institute of that period.

3. Research Questions
i) What was the nature, structure and other related factors of higher education prevailed in Nalanda, Gundishapur, Al-Qarawiyyin and Al-Azhar in the period of 415 A.D. to 1200 A.D.?
ii) What were the unique features of higher education existed in each University?
iii) Which one was scholastically outstanding?

4. Methodology
This paper is qualitative in nature and follows the historical approach. Qualitative data for this paper have been collected from various sources, like scholarly books, research papers, historical scriptures, authentic internet sources etc.

5. Background History
5.1 Nalanda (Established on circa 415 A.D.)
Nalanda has a very long history and great contribution in world education. It was situated in latitude 25°30’ and 25°83’ North and longitude 85°16’ and 85°27’ East. The scattered ruins of
Nalanda are situated near the village Bargaon, 11 km north of modern Rajgir and 85 km south-east of Patna in Bihar.³

In between the period 427 A.D. & 1197 A.D. – Nalanda achieved glorious and incredible position with high status and pride in the world educational scenario though a big confusion is there regarding the time period of foundation of the University. *Ashoka* was the first ruler who built a great Buddha temple which probably became the precursor of the later Nalanda *Vihara*. But Nalanda appeared as a learning centre near by the half of the 5th century A.D. According to Prof. Samaddar (Samaddar, “the Glories of Magadh”, P - 135, 2nd edition) – the foundation of Nalanda took place in the reign of *Sakraditya* (Kumara Gupta I, *Mohendraditya* – 415 A.D. – 455 A.D.) round 427 A.D. This date comes very near the earliest known date of *Kumara Gupta I* that is 415-16, of the Bilsad inscription, the foundation of Nalanda took place round 427 A.D.”. It is to be noted that Nalanda became flourished when a stream of scholastic pilgrimage began to flow towards the place. The final decline of the University was taken place by a barbarous adventurer, Muhammad Bakhtiyar Khalji, in approximately 1200 A.D.⁴

### 5.2 Gundishapur (Established on circa 531 A.D.)

At the time of *Sassanid’s* period (226 A.D. – 652 A.D.) a considerable scientific movement was started in Iran and as its consequences, the great higher learning centre, *Gundishapur* University was established and flourished. *Gundishapur* was a capital city established by ‘*Shahpur II*’ (309 A.D. – 379 A.D.) located in the South-West Iran in ‘Shah-Abad’ near Susa in Khuzestan province. The city *Gundishapur* was established by ‘*Shahpur I*’, at the end of the 3rd Century A.D. (Circa 271 A.D.). Dr. Nasr SH. said that the city of *Gundishapur* had been rebuilt shortly after ‘*Shahpur I*’ defeated the Byzantine Emperor ‘*Valerian*’ and conquered ‘*Antioch*’⁵ But the city became very much famous as a centre of science and culture at the time of ‘*Shahpur II*’. During the time of great Sassanid Emperor, ‘*Khosrow Anoushiravan*’ (531A.D. – 578 A.D.), *Gundishapur* University reached in the highest peak in education and culture. He sent ‘*Burzuyah*’, most contemporary renowned physician to India and China to obtain books on

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³ Background History of Nalanda University. Available in... file:///F:/Banglapedia.htm... retrieved on May,15, 2015.
Medicine and other subjects. In his arrival to India Burzuyah translated several Sanskrit texts into ‘Pahlavi’ language. He also translated ‘Panchatantra’, a famous Sanskrit text into Pahlavi language. Though Gundishapur was specialized in Medical studies and a teaching hospital was an integral part of the school but the other subjects like Theology, Mathematics, Astronomy and Astrology were also taught there.

The Sassanid dynasty fell to ‘Muslim Arab Armies’ in 638 A.D. which brought a big change of rules in Iran and from then the decline of Gundishapur was started. The Muslim conquerors burnt the whole collection of books of the library. In 832 A.D. ‘Caliph al-Mamun’ founded a famous institution in Baghdad. A large number of scholars of Gundishapur shifted to Baghdad and a final decline of Gundishapur University was taken place.

5.3 Al-Qarawiyyin (Established on circa 859A.D.)
Al-Qarawiyyin is a University located in Fez, Morocco. Al-Qarawiyyin situated in latitude 34°02′13″ North and longitude 4°59′59″ West. It was founded by Fatima al- Fihri in 859 A.D. with an associated school or Madrasa. In contrast according to UNESCO and a number of other sources, Al-Qarawiyyin is considered to have been a University since its founding that it is the oldest existing University in the world. According to the Guinness Book of World Record- the Al-Qarawiyyin institution is the oldest continuously operating academic degree- granting University in the world. However, the matter is still in a debate regarding its oldest stand. The mosque of Al-Qarawiyyin now is largest in Africa with a capacity of 22000 worshipers. The present form of the mosque has come in- forth through a long historical evolution of more than thousand years. In the beginning, the mosque was about 30 meters long. Umayyad Caliph of Cordoba, Abd-ar-Rahman III, first expanded the mosque in 956 A. D. The most extensive reconstruction was taken place under the patronage of the Almoravid ruler Sultan Ali Ibn Yusuf in 1135 A. D. and the structure in this period was expanded to more than 3000 square meters. In the 16th century, the mosque was restored by the Saadis with the addition of two patios to the northern and southern ends of the court-yard.

7 “Medina of Fez”. UNESCO. Retrieved July 31, 2015
5.4 Al-Azhar (Established on circa 972 A.D.)

Al-Azhar is a University located in Cairo, Egypt. It is situated in latitude 30°02’45” North and longitude 31°15’45” East. It was founded as Mosque by the Fatimid commander Jawhar and it was founded by the order of the Caliph Al-Muizz. Traditionally, propaganda was that the Caliph Al-Muizz is the founder of the city Cairo. It was so named in the honour of Fatimah, daughter of Muhammad and Ali and son-in-law and cousin of Prophet Muhammad. Fatimah was also called Al-Zahra which means ‘the luminous’. The building of the Al-Azhar Mosque primarily completed in the year 361 A.H. (972 A.D.). Later Al-Aziz Billah and Al-Hakim bi-Amr Allah extended its premises. The building again repaired, renovated and extended by Al-Mustansir Billah and Al-Hafiz Li-Din-illah. It appeared as a study centre in 975 A.D. by incorporating an attached Madrasa. Fatimid Caliphs had a sincere urge of knowledge and encouraged knowledgeable persons and scholars of the different parts to assemble here to deliver their valuable lectures. By this it appeared gradually a University. Now it is claimed that Al-Azhar University is the oldest still functioning University in the world. Though debate is there regarding its oldest stand.

6. Structure and System of Higher Education

6.1 Nalanda University

Though Nalanda was emerged as a centre of Buddhist tradition and education, still gradually it covered a wide range of subjects including all branches of Buddhism, other Indian philosophical systems, Chikitsavidya or Medicine, Astronomy, Geography, Mathematics, Hetuvidya or logic, Sabdavidya or Grammar and other arts and science subjects of the day. Nalanda Mahavihara being a seat of higher studies had a system of specialization. The subjects can be given as follows-

- Buddhist – Tripitika, Jatakamala poems, Abhidharmakosa of vasubandhu, Yogasastra, Nyayanusara sastra, Tantras, Buddha-charita-kavya etc.
- Brahmanical – Vedas, Samkhya, other old and modern learning of Brahmanical works.

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Secular – Hetuvidya, Sabdavidya, Chikitsavidya and Miscellaneous works, Vyakarana, Sanskrit language, Sculpture, Paintings, Metallurgy, Sarpa
dvida etc.

According to Hiuen-Tsang students of Nalanda were regulated strictly according to proper time schedule. The type of teaching was mainly professional in nature. In the course of studies the yogi learnt preaching, discussions, heard lectures, memorized them and grasped the Abhidhamma, Vinaya, Gatha etc. The aim was to become a man of letters (Vidya-purusha). Students were under the strict discipline. For offences the brethren has a gradation of penalties.

According to Hiuen-Tsang there were nearly 10,000 students but I-Tsing’s time the number of the students supported at the monastery exceeded 3000 [other view 5000 and in his (I-Tsing) memoirs, as 3500]. So, there was a confusion regarding the number of students studied at Nalanda. But it is no doubt that huge number of students from the various parts of the world studied there. The admission of a student possessed a complex procedure. The entrance examination was very strict so that its standard might be in keeping with that of its studies. Dwar-pandita asked various questions, which were connected with difficult problems. Most of the students were failure in giving answers. Only about twenty to thirty percent students could be able to success. Nalanda Mahavihara possessed a very large and rich library which comprised three monumental edifices, called Ratna Sagara, Ratna Dadhi and Ratna Ranjaka, of which Ratna Sagara that was a nine-storeyed building, was specialized in the collection of rare and sacred works.

Nalanda was noted for its specialization in the last stages of a University education. At that time Nalanda was particularly a research institute for advanced students. The stamp of its approval was necessary for any opinion to gain currency in the country. The highest academic degree of distinction of the times was a fellowship of Nalanda. Nalanda also had a department of secondary education for regular internal students for whom the above tests of admission did not apply. It admitted youngsters, the Brahmacaris and Manavakas. The University provided for all alumni free of cost there four requisite of clothes, food, bedding and medicine. The students could give themselves whole heartedly to their studies and self culture.
Eminent Teachers and Scholars

Nalanda was too much enriched with its high degree of teachers. Actually so much fame of Nalanda as a centre of learning was mainly due to the fame of its teachers. Among them Asanga, Vasubandhu, Dinnaga, Sthiramati, Gunamati, Chandragomin, Chandrakirtti, Dharmapala, Dharmakirtti, Silabhadra, Pravakara Mitra, Rahulabhadra, Nagarjuna II, Aryadeva, Santideva, Santarakshita, Kamalasila and many of others.

6.2 Gundishapur University

According to ‘Cambridge History of Iran’ Gundishapur was the most important Medical centre and higher learning institution of the ancient world during the 6th & 7th Centuries and also had a pivotal role in the history of Mathematics. This University possessed a definite University complex which was mainly built by the Sassanid Emperors. Shahpur II built a Medical centre which also included a library of near about 400,000 books. Emperor Anoushiravan built a number of buildings within the complex for an Observatory and School of Sciences. Around 5000 students were studying at Academy of Gundishapur during the reign of Khosrow Anoushiravan. Gundishapur was the pioneer in following secular type of curriculum. It is found in the contemporary higher learning institutions that all institutions had a great importance in religious matter and their primary motto of foundation was to follow and exercise religious culture and education except Gundishapur. During the period of Khosrow Anoushiravan, a large number of secular as well as modern subjects were taught here. Medicine, Anatomy, Dentistry, Astronomy, Mathematics, Philosophy, Military Commandership, Architecture, Craftsmanship, Agriculture, Irrigation and Geometry – had been taught there. When Arabians occupied Iran, a vast change of curriculum had been taken place. A great importance of Islamic Theology was given in the curriculum. In the process of teaching and learning, beside lecture method other methods which are effective and popular in our modern education system were also used in Gundishapur. According to the Egyptian historian ‘Ibn-Qefiti’ (568 – 648 A.H.), the ‘Therapeutic Approaches’ of the Gundishapur physicians were very much advanced and it was more up to date than the Greek and Indian methods. Seminar was very important at that time. Here, ‘Panel Discussion Sessions’ were also arranged among prominent physicians to create a better ground

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for the exchange of skills and experiences. Emperor Khosrow Anoushiravan organized the ‘World’s First Medical Conference’ in Ctesiphon in 550 A.D. More than hundreds of physicians and religious figures from different countries mainly from India, Syria and Greece participated.\textsuperscript{13} The University had a very rich library. This library often employed translators and copyists in large numbers in order to render into Arabic, the bulk of the available Persian, Greek and Roman non-fiction and the Classics of Literature. The University library had 259 rooms, nearby 400000 books and most of the books were written in foreign languages like Greek, Syrian and Sanskrit etc. The fact is that the World has never seen a magnanimous library like the one in Gundishapur University.\textsuperscript{14} In the Gundishapur University, the students were initially taught in Greek and Syrian languages but later during the 6\textsuperscript{th} Century A.D. Pahlavi language was also added in teaching-learning as a medium of instruction. This centre of learning had an organized system of examination, especially at the period of Sassanid Emperor Khosrow Anoushiravan. The king set-up some organizations by which newly graduated doctors would take special examinations. The organizations administered examinations for the new physicians. If the examinees could able to do satisfactory result, then academic degrees were granted for them. There was also a system of special test for the new medical students in order to obtain the right to practice.

\textbf{Eminent Teachers and Scholars}

Gundishapur was the birth place of many eminent teachers and scholars like ‘Harith Ibn-Kaldeh’, the great Arab physician, the physician vizier of ‘Anoushiravan’ called ‘Burzuyah’, the great ‘Buktishu’, the famous ‘Masawaiyh’, ‘Sarakshi’ and ‘Sabur Ibn Sah I’ and so many.

\textbf{6.3 Al-Qarawiyyin University}

Al-Qarawiyyin Madrasa took a vital role which may be called as leading role in developing culture and academic prosperity in the Islamic world in the middle ages. The Al-Qarawiyyin Madrasa and its glorious pattern of education has produced a number of numerous scholars who have a significant role in the intellectual and academic realms of the Muslim world. The pattern of education was mainly concentrated on the Islam and its associated matters with a heavy emphasis on classical Arabic grammar and Maliki law, though some of the non-Islamic

\textsuperscript{13} Momtahen, H., (1977), \textit{The Story of Jundishapur}, Ahwaz, Jundishapur University Press, pp. 37 & 44
\textsuperscript{14} Zamiri, MH., (1995), \textit{History of Education and Learning in Iran and Islam}, Shiraz, Rahgosha Publication, p. 64
subjects were also taught like English, French, Medicine, Mathematics and even History, Geography and Music. The quality of education was so high that the students from all-over the Muslim world were attracted. There were a large number of applicants who tried to take admission in the University but the University had to introduce a selection system that the student must have the knowledge of whole Quran, knowledge of Arabic language and of general sciences and belong to the Muslim community. The method of teaching was traditional in nature. Mainly lecture method was followed there. Generally, 13 to 30 age groups of students were studied there. The high school level Diplomas and University level Bachelor’s degrees were awarded for the students.

**Eminent Teachers and Scholars**

Al-Qarawiyin Madrasa has produced a number of eminent scholars who have influenced significantly in the intellectual and cultural history of the Muslim world as well as Jewish world. The famous theorist of the Maliki school of Islamic jurisprudence, Abu Imran al-Fasi, the famous writer Leo Africanus, Ibn Maimun, Al-Idrissi, Ibn al-Arabi, Ibn Khaldun and many others were all connected with Al-Qarawiyin as students or scholars or lecturers. There were some of the famous Christian scholars also like Belgian Nicolas Cleynaerts and Dutchman Golius who enriched the educational system of Al-Qarawiyin.

**6.4 Al-Azhar University**

Al-Azhar Madrasa in the 10th century appeared as a symbol of the development of Islamic culture and education. Here, attention was given to spread the philosophical studies among the learners. The administrators paid their attention not only to develop Islamic philosophy; they were much influenced by Greek thought and Indian philosophy. So, they warmly receipted the personalities in this field. A large collection of books written on various subjects also brought here to meet up the urge of knowledge of the students. According to Syed Farid Alatas, all branches of Islamic law and jurisprudence, Arabic grammar, Islamic astronomy, Islamic philosophy and logic taught here. Though the valuable books were once destroyed by Salah-ud-Din Ayyubi and the treasures were lost forever. In the 12th century the tassel between Shea

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and Sunni affected the University environment by which the Shea Fatimid dynasty over throne and it became ‘Sunni Centre of Learning.’ Initially, there were no entrance requirements, no formal curriculum and no degrees. The basic programmes of studies were Islamic law, Theology and the Arabic language. The method of teaching was traditional in nature. Lecture method mainly used with maintaining all rules and regulations of Islamic school.

**Eminent Teachers and Scholars**

A large number of notable persons associated with the Al-Azhar University. It has also produced a valuable range of eminent teachers and scholars. Fatimid commander Jawhar (972 A.D.), Al-Aziz Billah (975-996 A.D.), Al-Hakim bi-Amr Allah (996-1021 A.D.), Al-Mustansir Billah (1021-1036 A.D.) and Al-Hafiz Li-Din-illah, Muhammad Abduh and Sayd Jamal edin Afghani, the Mufti of Jerusalem Mohammad Amin al-Husayni and so many names were associated with the University.

7. Dimensions of Comparative Evaluation
## Comparative Analysis & Findings

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<tbody>
<tr>
<td>Nature of Institution</td>
<td>Nalanda University</td>
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<tr>
<td>Gundishapur Academy</td>
<td>Al-Qarawiyyin</td>
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<tr>
<td>Definite University campus, time to time modified and reformed</td>
<td>Developed as an attached educational centre of the Islamic Mosque</td>
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<td>Students belonging from Islamic community only got the chance to take admission</td>
<td>Same as Al-Qarawiyyin</td>
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<tr>
<td>Administration &amp; Management</td>
<td>A rigorous entrance examination, oral in nature, conducted by erudite ‘Dwar Panditas’.</td>
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<tr>
<td>Administered from the King’s palace</td>
<td>Nalanda had a supreme body; members were elected by the monks of the different parts of the World. The modern concept of TQM nearly applied</td>
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<tr>
<td>Islamic Theology, Rhetoric Grammar &amp; Islamic Law</td>
<td>Same as Al-Qarawiyyin</td>
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<tr>
<td>Curriculum</td>
<td>Islamic Science was given the top priority</td>
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<tr>
<td>Method of Instruction</td>
<td>Nalanda University</td>
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<tr>
<td>Lecture method, Therapeutic Approach &amp; Mainly Lecture method</td>
<td>Al-Qarawiyyin</td>
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<tr>
<td>Beside Lecture method other methods like</td>
<td>Same as Al-Qarawiyyin</td>
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<tr>
<td>Panel Discussions</td>
<td>System of ‘Halqa’</td>
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<tr>
<td><strong>System of Examination</strong></td>
<td>System for newly Graduate Doctors</td>
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<tr>
<td><strong>Royal Patronage</strong></td>
<td>Completely financed by the King</td>
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<tr>
<td><strong>University Autonomy</strong></td>
<td>Consumed a very less Autonomous power</td>
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<tr>
<td><strong>Research Unit</strong></td>
<td>Research Unit specially in Medical science</td>
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<tr>
<td><strong>International Appeal</strong></td>
<td>Had high International Appeal, students came from Greece, Syria, Persia</td>
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From the above analysis, it is clear that in respect of University Campus, Admission Procedure, Curriculum, Method of Instruction, Administration & Management, Nalanda had better options. So, Nalanda University was quite outstanding in its time and space.

8. Conclusion
Nalanda, Gundishapur, Al-Qarawiyyin and Al-Azhar - all had a significant role in the history of education. Nalanda was the symbol and the starting point of modern concept of higher education. Its system of education is still very much relevant and it has a great impact on the modern concept of University level education. Nalanda and Gundishapur both had been dilapidated by the devouring time but two famous institutions are still very much relevant in respect of directing the modern system of education. Al-Qarawiyyin and Al-Azhar still exist. Al-Qarawiyyin at present is the oldest existing and continually operating educational institution in the world according to UNESCO and Guinness World Record. Gundishapur University was revived, revival of Nalanda has been started but they yet to search their past glory, pride and International stand.

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