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Mathematics, Astronomy, Medicine In Arabic Source.

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Abstract:
Arab civilization have the Rich background in the history of Revolutionary page of Scientific and Philosophical Development in the 20th century . In the beginning of 7th century the Greek Civilization being Starting silence, at that time Arab civilization Play the pivotal role to Rescue the Hellenistic and Greek legendary works. They Assimilate those work And explored through Translation Movement through Arabic Language in the various sector Most of Astronomical, Mathematical, Geographical, Medicinal and Philosophical works of Aristotle, Plato , Galen , Ptolemy during the Golden age of Arabic literature
In the field of Astronomy Arabian Scholars explored thoughts with the guidance of Greek and Hellenistic period Astronomical works. Arabian Scholars define the Astronomy by two terms i.e. ilm-al-falak or ' Science of the celestial orbit .and ilm-al-haya or 'science of the structure of the Universe. Arabian Scholars introduced Astrolabe dating to ancient times. They Translate the prestigious work of Ptolemy Almagest on Astronomy. They introduced many observatory for Astronomical Research during the ruling period of Abbasid caliph's Al-Mamun-Al-Rashid .
Arab civilization have the most glorious background on mathematical revolution with the flame of kitab-al-jabar in the womb of Algebra, Trigonometry by Alkhawrjami , they developed the number system with the touch of Indian Mathematician and explored the scientific usage of the ZERO in the history of European Mathematical revolution. Not only that, they have significant role in the Medicinal revolution in the Europe and throughout the world by the work of Ibn Sina Alqanun fi-al-tib and it was a major medical text used in Europe for centuries. Modern Scientific and Philosophical revolution is the reflection of the Greek Civilization and Arabic civilization.
Keywords: *Philosophical Development, Greek Civilization, Hellenistic period, Astronomical Almagist, Algebra, Trigonometry, Astrolabe, observatory.*

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I. Introduction:

Arab Civilization have the cinematic role in the development of human civilization in Most of Africa and Some of the Asia. In the golden age of Islamic civilization (8th–14th centuries), Arabic emerged not just as a language of poetry and faith, but as the indispensable bridge for humanity's greatest scientific leaps.

ASTRONOMY: In the field of Astronomy Arabian Civilization have the glorious and significant stage in the heart of universal civilization. In the Arabian Peninsula as in all of the Near East , traditions of observing heaven went back a very long way what Arab Astronomers called Treaties on The ***Anwa*** refers to the helical rising and acronycal settings of certain groups of stars , in 964.A.D Persian Astronomer ***Abu-al-Rahaman-Al-Sufi*** wrote in his works *books of fixed stars* described a nebulous spots in the Andromeda Constellation now it is Andromeda Galaxy. In the 11th century ***Ibn-al-Hythem*** (Alhazen) father of modern optics , first criticize on ***Ptolemi's*** Mathematical model of Planetary theory. After Some period ***Abul-Wafa-Abbas-Al-Buzjani*** **,** Persian Mathematician and Astronomer was the first to build a wall quadrant to Observe the Sky and the evolution of the genere of the stars.In 13th century C.E ***Nasir-Al-Din-Al-Tusi*** Constructed the ***Maragha*** Observatory today in Iran .***Al-tusi*** introduced A geometrical technique **(*TUSI-COUPLE)*** which generates linear Motion from the sun of two circular motion.The some name of the stars *Rigel , Vega Aldebaran* that comes directly from Arabic.

MATHEMATICS : In the development of Mathematical revolution Arabian Scholars play the pivotal role . Mathematics during the Golden Age of Arab civilization especially during the 9th and 10th Century CE was built on ***Greek Mathematics*** (Euclid, Archimedes,Appolonius) and Indian Mathematics (Aryabhatta ,Brahmagupta). They developed decimal Place value System to include decimal fraction, the first systematised study of Algebra and advances in geometry and trigonometry. Arabic works played an important role in the transmission of mathematics to Europe during 10th to 12th centuries. The history of Arab Mathematical revolution began with Muhammad Ibn-Musa- Al-Khwarizmi who played a significant role in the development of Algebra, Arithmetic, Trigonometry And Hindu-Arabic Numerals not only that . While the western mathematician were thou was against the mathematical usage of ZERO, one the other side In the Indian Subcontinent Great Mathematician

Brahmagupta And Aryabhatta Explored the scientific usage of ZERO in Indian Mathematical revolution. At the beginning of 9th century Mohammad Ibn Musa Al- Khwarizami traveled to Indian to learn the science of that time, and he accepted the thoughts of Brahmagupta and Aryabhatta and translate in to Arabic named ***Brahmasputsidhyant*** . After some period Italian Mathematician Named ***Fibonacci*** who Accepted the scientific Usage of ZERO and Hindu -Arabic Numerals from Khwarizami's works explored in western civilization by Latinized work ***Liber Abacci.*** Al-khwarizami's works on Algebra Kitab-Al-Jabar presented the first systematic Solution of Linear and Quadratic equations. In the 12th century Khwarizami's works On Indian Arithmetic introduced Indian Numerical Methods and decimal system to the western Mathematical revolution.The Latin work of Al-Jabar Used until 16th century as the principal Mathematical text book of European Universities. In the last phase of 9th century Syrian Astronomer , Mathematician geographer ***Al-Battani*** introduced the Usage of ***Sines*** and ***Tangents*** in Geometrical Calculation, especially in spherical trigonometric functions, Ibn-Al-Hytham (Alhazen) rebuilt Mathematical Works of Euclid 's Elements Al-Hazen discovered the sum formula for the fourth power and he also Solved the ***Wilson's Theorem*** . Persian poet and polymath Omar Khayyam who famous as mathematician for contribution of cubic equations Where proved a geometrical formulation based an intersection of Conics .

MEDICINE: Although in the patronage of Umayaad dynasty starting the development of Arab Medicine but in the Abbasid period Arab Medicinal revolution reached the high peak of the development. At the ruling period of Al-Mansur fruitfully strating translate the Greek Medicinal Works in the college of Jundishapur wheres' principal Physiologist was Bakht-e-Ishu. In the 9th century A.D Arabian Medicine Scholar ordered and made more systematic the vast Indian and Greco-Roman Medicinal Knowledge by writing encyclopedias and Essays. It was through 12th century Arabic translation that Medieval Europe rediscovered Hellenic medicine including the works of Galen and Hippocreatas discovered the Indian great Medicinal Work of Shusruta and charak . In the book Al-Shakook ala-Jalinoos (The Doubt of Galen) Al-Razi criticized Galen's work especially Humorism . Arab physician Ibn Zuhr provided proof that Scabies is caused by the Itch mite and it can be cured by removing The Parasite. In Neurology, Rhazes (Al-Razi) Stated that nerves had motor of Sensory function, describing 7cranial and 31 spinal cord nerves. In 9th century 's great physicians Al-Razi is attribute with a remarkable method for the selecting the site of a new hospital.In fectious diseases Al-Razi differntieates through carefully observation the two diseases Small pox and measles. Al-zahrawi was the first physian to describe ectopic Pregnancy. He is often called the father of Surgery. Avicenna , preeminent philosopher and physician of the Medieval Arab World during the Golden Age of Arabian civilization he often described as the father of early Modern Medicine. His most famous works are The Book of Healling , a philosophical and scientific encyclopedia and Canon Of Medicine, five volume Medical encyclopedia in this book he postaluated that invisible tainted organisms were associated diseases and recommended isolating ill is divided to reduce transmission to the others. The Canon Of Medicine , Used as the standard Medical text book in the European Universities up to 18th century.

II. Conclusion:

Although Arabian Peninsula have the Black Background Before the Religious Revolution, They Have thirsty to Explore new thoughts .in that era born in the heart of Arabians Love of poetry and thirsty to explore new facts and ideas on Astronomy and Geography. In the history of sailing and voyage Arabians have the significant and glorious stage .The north Polar Star have Used by them As compass but at that time Arabian culture enclosed with religious superstation hance called this era Age of Ignorance . In the 7th century A.D . Arabian channelled to the legendary page of the human civilization with the touch of the Ideology of Monotheism called Islam and in the beginning of the 9th century C.E. Arabian Civilization bring the revolutionary movement in the development of Mathematics, Geography, physics, chemistry and Medicine with the touch of Greco-Roman civilization and Hellenistic period.

In the above discussion mentioned Astronomical works of Abul Wafa Ibn -Buzjani , Mathematical works of Khwarizmi Al-Jabar and the Medicinal revolutionary work The Canon Of Medicine to reflect the latent Scientific and Philosophical entity of the Arabian civilization .

The Arabian Civilization possessed as glorious up to 13th century C.E. . In the beginning 18th century Arabian civilization lost the supreme stage due to attached with the pedantry and poor in productivity in scientific research . We should think about the rediscover the Scientific pride of the Arabian civilization by exploring the new thoughts and scientific research .

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