Summarize the following articles:

1. Pollution today poses a major threat to the survival of the world we live in. Smoke or dust released in the air is the major type of pollution as it is extremely bad for the humans as it directly affects the lungs. Sewage, harmful content in drinking water is another major type of pollution that makes people unhealthy and ill because it contains disease-causing germs and viruses.
   The environmental consequences of sudden rapid industrialization have resulted in various incidents of land, air and water resources sites being contaminated with toxic materials and other pollutants, threatening humans and ecosystems with serious health risks.
   During manufacturing and construction activities every bit of natural resources is exploited to covert these into goods that fulfil the needs of the countries. A major cause for all the causes listed above is the manufacturing that leads to major types of pollution.
   People living next to a building site where there is too much noise and construction activities rigorously going on tend to fall sick.
   Pollution can be considered as direct or indirect change in any component of the biosphere that is harmful to the living components and in particular undesirable for humans, affecting adversely the industrial progress, cultural and natural assets or general environment of living society.
   The biggest irony of all this is that even if we know that the earth is getting polluted, ultimately it is the human beings themselves who dig their own grave by doing deliberate activities because of which pollution is caused. It does not only spoil human beings' health but also worsen their quality of life.

   Role of the Government:
   The Government has launched various pollution prevention policies and Acts that focus on preventing and controlling pollution by random means such as the following:
   Adoption of clean and low waste technology, reusing and recycling, environment audit and pollution monitoring activities, reducing hazardous materials at source wherever feasible, promoting recycling of waste, etc.
   There has also been a concept called "Pollution prevention approach" that seeks to increase the efficiency of a process reducing the amount of pollution generated at its source.
   To give effect to the government policies, various steps have been initiated which include statutory stringent regulations, development of environmental standards, control of pollution generated through vehicles, spatial environmental planning including industrial estates and preparation of zoning atlas.

2. The 7th to the 13th century was the golden age of Muslim learning. In mathematics they contributed and invented the present arithmetical decimal system and the fundamental operations connected with it: addition, subtraction, multiplication, division, exponentiation, and extracting the root. They also introduced the 'zero' concept to the world.

   Some of the famous mathematicians of Islam are:

   AL-KHWARIZMI (780 - 850 CE)
   Muhammad Ibn Musa Al-Khwarizmi, the father of algebra, was a mathematician and astronomer. It is generally assumed that Al-Khwarizmi was born around 780 CE in the town of Kath in the oasis of Khorzen. Kath is now buried in the sand. Al-Khwarizmi was summoned to Baghdad by Al-Mamun and appointed court astronomer. From the title of his work, Hisab Al-Jabr wal Mugabalah (Book of Calculations, Restoration and Reduction), Algebra (Al-Jabr) derived its name.
   A Latin translation of a Muslim arithmetic text was discovered in 1857 CE at the University of Cambridge library. Entitled 'Algoritimi de Numero Indorum', the work opens with the words: 'Spoken has Algoritimi. Let us give deserved praise to God, our Leader and Defender'. It is believed that this is a copy of Al-Khowarizmi's arithmetic text which was translated into Latin in the twelfth century by an English scholar. Al-Khowarizmi left his name to the history of mathematics in the form of Algorism (the old name for arithmetic).
   Al-Khowarizmi emphasised that he wrote his algebra book to serve the practical needs of the people concerning matters of inheritance, legacies, partition, lawsuits and commerce.
   In the twelfth century Gerard of Cremona and Roberts of Chester translated the algebra of Al-Khowarizmi into Latin. Mathematicians used it all over the world until the sixteenth century.

   AL-KINDI (801-873 CE)
   Abu Yusuf Yaqub Ibn Ishaq Al-Kindi, was born around 801 CE in Kufa during the governership of his father. The surname indicates ancestry in the royal tribe of Kindah of Yemenite origin. To his people he became known as Faylasuf Al-Arab (the philosopher of the Arabs) the first one in Islam. Among his contributions to arithmetic, Al-Kindi wrote eleven texts on numbers and numerical analysis.

   AL-KARAJI
   Abu Bakr ibn Hussein was born in Kharkh, a suburb of Baghdad. His works covered arithmetic, algebra and geometry. His book ‘Al-Kafi fi Al-Hisab' (Essentials of Arithmetic) covers the rules of computation. His second book, ‘Al- Fakhri' derived its name from Al-Kharki's friend, the Grand Vizier of Baghdad.

   Al-BATTANI (850-929 CE)

Muhammad Ibn Jabir Ibn Sinan Abu Abdullah, the father of trigonometry, was born in Battan, Mesopotamia and died in Damascus in 929 CE. An Arab prince and governor of Syria, he is considered to be the greatest Muslim astronomer and mathematician. Al-Battani raised trigonometry to higher levels and computed the first table of cotangents.

AL-BIRUNI (973-1050 CE)

Al-Biruni was among those who laid the foundation for modern trigonometry. He was a philosopher, geographer, astronomer, physicist and mathematician. Six hundred years before Galileo, Al-Biruni discussed the theory of the earth rotating about its own axis.

Al-Biruni carried out geodesic measurements and determined the earth's circumference in a most ingenious way. With the aid of mathematics, he enabled the direction of the Qibla to be determined from anywhere in the world.

In the domain of trigonometry, the theory of the functions; sine, cosine, and tangent was developed by Muslim scholars of the tenth century. Muslim scholars worked diligently in the development of plane and spherical trigonometry. The, trigonometry of Muslims is based on Ptolemy's theorem but is superior in two important respects: it employs the sine where Ptolemy used the chord and is in algebraic instead of geometric form.