

Chapter – 01

Universe – Scientific Research

(کائنات-سائنسی تحقیق)

❖ *Introduction:*

Literary speaking all the existing matter and space, considered as a whole, is known as “Universe”. It has also been called “cosmos”. Human being and the related items are included in this Universe.

The branch of knowledge in which the existing matter studied all-together is called Cosmology, whereas the successive research work on its minute details is known as Science. In 19th century, the well-disciplined studies regarding this world, the word Science has been referred to in which different sciences like Physics, Chemistry, Geology and Biology etc. are counted in. The persons who remained engaged with these studies were called “Scientist”.

On the basis of various observations and experiences, the Scientists have formulated certain Principles of Nature. According to these researches this Universe is mainly comprised of two things i.e. “matter” and “energy”. The mass particles of this universe are being spread successively through energy and as a result many Galaxies are being formed. As such, this universe in a way is a group of mass particles, all kinds of energies and the space and time. This cluster is based on well-connected and very systematically organized objects. This solid existence is only possible under firm “Principles of Nature”.

❖ *Universe:*

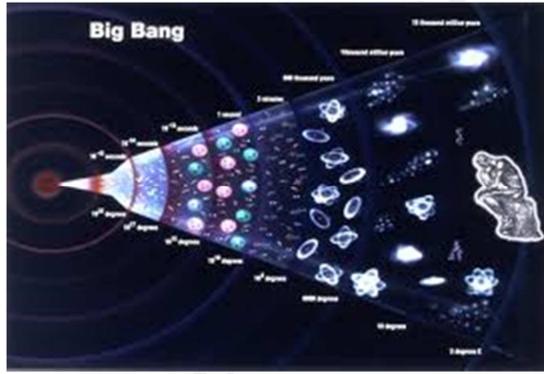
According to the Scientist’s supposition approximately 13.7 billion years ago, an infinitely minute but infinitely dense and infinitely hot mass existed that has been termed as “Singularity” (وحدانیت). In this mass a gigantic explosion occurred and as a result this Universe originated. This huge explosion is known as “Big Bang”.

In 1920, an American Scientist Edwin Hubble informed that the galaxies of this Universe are continuously going apart from us. After that he presented his theory that if we consider the expansion reversed, it can easily be imagined that at one stage this Universe must have dispersed from one point. And before Big Bang explosion the mass and energy of this Universe must have been existed together at one place.

As regards to the beginning of this Universe, the Holy Quran says:

أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا

{The heavens and the earth were together and We parted them. (21:30)}



Till now nobody knows what was existed before this Big Bang and so far no one could also assess the reasons of this explosion. The interesting thing that has to be noted, that due to this explosion the dispersion of mass was not haphazard. Rather, it has created space inside and then the particles gone apart with certain attraction between each other causing stability in the separated masses.

This Universe is infinite and its expansion is still continued. Whatsoever we could see in this Universe is the Big Galaxies are millions in numbers whereas the Small Galaxies are in billions. And stars are countless.

In connection with the expansion, hugeness, and the extent of this Universe the Holy Quran says:

وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدٍ وَإِنَّا لَمُوسِعُونَ

{And We have built the heavens with the hands (of our Divine Power), and indeed We are its expander. (51:48)}

