

GEOGRAPHY

Earth to study

- * Greek word → Gaea - meaning - earth
graphēin - meaning - to write about something.
- * Father of Geo - Hecataeus of Miletus
- * Coined the term Geo - Eratosthenes (Greek Scholar)

Date / /

★ Smallest Galaxy - Dwarf Galaxy **Saathi**

★ Largest Galaxy - Markarian-348
(13 times larger than Milky Way)

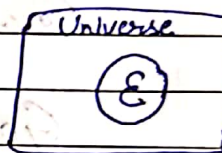
★ Our Galaxy - Milky Way Galaxy / Akash Ganga
★ It is spiral in shape, Diameter - 105700 light years

★ Nearest Galaxy - Andromeda
2.2 million light year.

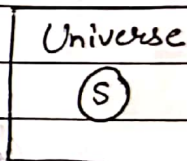
Note :- 1 light year = approx. 9 trillion km
i.e. $(9.461 \times 10^{12} \text{ km})$

Views regarding Universe

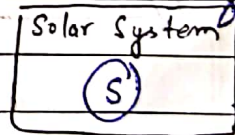
(1) Ptolemy → Earth is at the centre of the Universe
(Geocentric Concept)



(2) Nicolaus Copernicus → Sun is at the centre of the Universe
(Heliocentric Concept)



(3) Johannes Kepler → He supported Copernicus & said that Sun is at the centre of Solar system



BIG BANG THEORY → 15 Billion years Ago

→ Georges Lemaitre, in 1930

★ At the beginning, **point of singularity**

with an unimaginable small volume,
infinite temp, indefinite density

Explosion occurred

leads to formation of Galaxy & of Stars

Raja Rani

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- * They formed galaxies & continuously expanding & moving away in an accelerated velocity.

Q How planets & star formed?

! De-Gassing Theory

Blast occurred (Big Bang Theory)

↓
Atoms distributed

↓
Core formation takes place & dust particle combine

↓
Gas clouds form due to gravity

↙
Cold clouds

↘
Hot clouds

↓
leads to formation of

[planets]

↓
leads to formation of

[Sun]

(Hydrogen 71%, Helium 26.5%, other elements 2.5%)

STARS :-

- * Made up of hot burning gases.
- * Emit light of their own & are very large and hot.
- * Closest star to the Sun → Proxima Centaury

