

B.M.A. College Baheri, Darbhanga

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Subject - Biology

Class - XI

Topic: The Living World

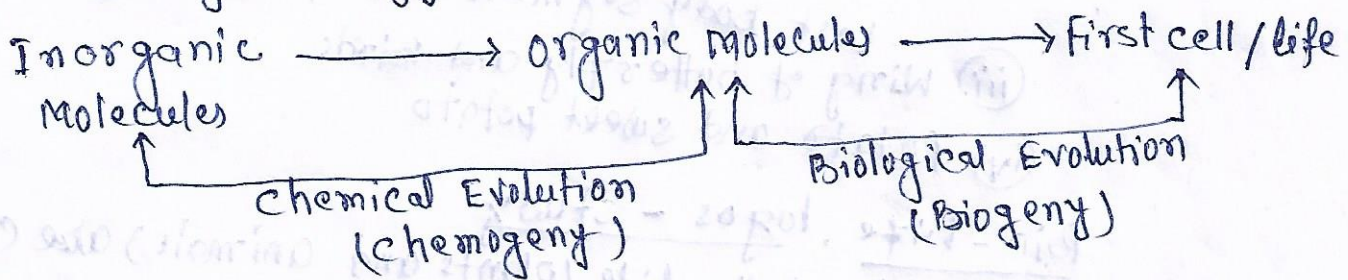
Introduction:

EARTH: Earth is 4000 year old.

Water is essential for the origin of life.

Early Earth Conditions

- High temperature
- Lightning
- Atmosphere
- High energy sources.



Complex organic compounds ; Macromolecules
Monosaccharides + Monosaccharides → Polysaccharides

Glycerol + Fatty acids → Lipids

Amino acids + Amino acids → proteins (Non enzymatic)

Homologous organs: → same origin, embryonic development and fundamental structure.

→ Function may be same or different

(i) Testes in male (♂)

(ii) ovary in female (♀)

Man → Hand — Holding

Bat → Wing — Flying

Whale → Fins — Swimming

Cheeta → legs — running

Heart of vertebrate and Brain of vertebrate

Cardiogenic region → Heart

Neural plate → Brain

Mouth parts of all insects

Cockroach → Biting and chewing

Honeybee → chewing and lapping

Mosquito → Piercing and sucking

Modified stem → e.g. potato and ginger

Modified Roots → e.g. Radish and Carrot

Analogous organ :→ same function and different origin

e.g. (i) Eye of octopus and mammals

(ii) sting of honeybee and scorpion

orri position → Honeybee sting

last body segment → scorpion sting

(iii) wing of butterfly and birds

(iv) potato and sweet potato

Bio - life, logos - study

the study of the life (plants and animals) are called

Biology.

Biology

① Botany ② Zoology

① The study of the plants is called Botany.

② The study of the animals are called zoology.

plants or Animal-Kingdom

↑
Phylum or Division

↑
Class

↑
Order

↑
Family

↑
Genus

↑
Species

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