Date: 14/8/2020
MON TUE WED THR FRI SAT SUN

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:- Write Notes on FOSSIL AND THEIR MODE OF FORMATION?

:- Fossil :-

A fossil (From classical Latin : fossilis, literally "obtained by digging") is any preserved remains, impression, or trace of any once-living thing from a past geological age. Examples include bones, shells, exoskeletons, stone imprints of animals or microbes, objects preserved in amber, hair, petrified wood, oil, coal, and DNA remnants. The totality of fossils is known as the fossil record.

Paleontology is the study of fossils: their age, method of formation, and evolutionary significance. Specimens are usually considered to be fossils if they

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are over 10,000 years old. The oldest fossils are around 3.48 billion years old to 4.1 billion years old. The observation in the 19th century that certain fossils were associated with certain rock strata led to the recognition of a geological timescale and the relative ages of different fossils. The development of radiometric dating techniques in the early 20th century allowed scientists to quantitatively measure the absolute ages of rocks and the fossils they host.

Fossilization processes :-

The process of fossilization varies according to tissue type and external conditions.

Permineralization :-

Permineralization is process of fossilization that occurs when an organism is buried. The early

spaces within an organism (spaces filled with liquid or gas during life) become filled with minerals -rich groundwater. Minerals precipi-tate from the groundwater, occu-pying the empty spaces. This process can occur in very small spaces, such as within the cell wall of a plant cell. Small scale permineralization can produce very detailed fossils. For permine-ralization to occur, the organism must become covered by sediment soon after death, otherwise decay commences. The degree to which the remains are decayed when covered determines the later details of the fossil. Some fossils consist only of skeletal remains or teeth; other fossils contain traces of skin, feathers or even soft tissues. This is a form of diagenesis.

Cast and molds :-

In some cases, the original remains of the organism completely dissolve

or one otherwise destroyed. The remaining organism - shaped hole in the rock is called an external mold. If this hole is later filled with other minerals, it is a cast. An endocast, or internal mold, is formed when sediments or minerals fill the internal cavity of an organism, such as the inside of a bivalve or snail or the hollow of a skull.

History of the study of fossils :-

Gathering fossils dates at least to the begining of recorded history. The fossils themselves are referred to as the fossil record. The fossil record was one of the early sources of data underlying the study of evolution and continues to be relevant to the

to the history of life on earth. Paleontologists examine the fossil record to understand the process of evolution and the way particular species have evolved.

See also :-

- Bioerosion – erosion of hard substrates by living organisms
- Cryptospore
- List of molluscan genera represented in the fossil record - Wikipedia List article
- Living fossil
- Paleobiology
- Paleobotany
- Schultz's rule
- Shark tooth
- Signor–Lipps effect