

SL No of QP : 5089
UNIVERSITY OF DELHI
B.Sc. (H) (NEP) Sem-V Theory Examination

Subject: Geology Paper Code: 2194000016
(Evolution of Life Through Time)

Marks: 90

Time: 3 hours

Note: Answer any **FIVE** questions. All questions carry equal marks.

1. When and why did the Great Oxidation Event (GOE) occur? How did GOE change the environments and biological evolution on the Earth? Do you think there were multiple, oxidation events?
2. Write notes on any TWO of the following.
 - a) The transition from mammal-like reptiles to mammals
 - b) Evolution and expansion of angiosperms
 - c) How do rocks and life forms of the Archaean and the Proterozoic differ from each other?
3. Write notes on any TWO of the following.
 - a) Conceptual development of RNA World
 - b) Evolution of vertebrates during the Palaeozoic
 - c) Transition from mammal-like reptiles to mammals
4. Discuss how life evolved in the Mesozoic Era following the great mass extinction event at the end of Permian with a focus on major biological transitions and evolution of primary producers in the ocean.
5. Write notes on any TWO of the following.
 - a) Role of grassland expansion in the radiation of mammals
 - b) Snowball Earth hypothesis with supporting evidence
 - c) Biomineralization processes
6. Was the extinction of dinosaurs gradual or sudden? Discuss in detail the possible causes for their extinction.
7. Write notes on any TWO of the following.
 - a) Transition from a terrestrial artiodactyl mammal to fully aquatic whale.
 - b) Feathered dinosaurs and evolution of birds
 - c) Ediacaran fauna and its uniqueness from early Cambrian fauna
8. Discuss different stages in human evolution. What were the effects of environmental changes on human evolution?