

Set A

University of Delhi

Name of Paper: Paleontology

Unique Paper Code: 32191303

Course: B.Sc. (H) Geology (CBCS)

Semester-III

Time: 3 hours

Maximum marks: 75

Attempt any **four** questions. All questions carry equal marks.

#

#

1. Explain in detail the processes that fossils undergo prior to their preservation. What are the optimal conditions necessary for the preservation of a Lagerstätte?
2. Describe the shell morphology of ammonites with neat sketches and explain their biostratigraphic and paleogeographic significance. Comment on sexual diamorphism and heteromorphism in ammonites.
3. a) How does a biological species concept differ from that of a palaeontological species?
b) Discuss the role of fossils in relative dating of sedimentary strata.
c) Evolution of horse is an example of orthogenesis. Do you concur with this statement? If your answer is yes, justify it. If your answer is no, explain why it is not.
4. Define trace fossils and explain ichnofacies concept. What are the advantages and limitations of trace fossils? Comment on the role of trace fossils in interpreting the paleoenvironment.
5. Give a detailed account of important stages in the evolution of plants through geological time.
6. Explain the major difference in shell morphology of brachiopod vs. bivalves. Discuss the various criteria to differentiate the left and right valves in the bivalves.

#

#

#

#