

This question paper contains 2 printed pages.

Your Roll No.

Sl. No. of Ques. Paper : 2057 **GC-3**
Unique Paper Code : 32191303
Name of Paper : Palaeontology (C3)
Name of Course : B.Sc. (Hons.) Geology (CBCS)
Semester : III
Duration : 3 hours
Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

*Attempt five questions in all.
All questions carry equal marks.*

1. How strong is the fossil record as a sample of past life? Discuss the role of fossils in palaeoecological and palaeogeographical reconstructions.
2. Write short notes on any **two** of the following:
 - a) Mode of preservation in fossils record
 - b) Trilobite morphology
 - c) Biostratigraphic units
3. Explain morphology of ammonoides with the help of neat labelled sketch and their significance in Mesozoic biostratigraphy.
4. Differentiate between any **two** of the following:
 - a) Strophic and non-strophic shell
 - b) Brachiopod and bivalve shell
 - c) Genotype and Phenotype

P.T.O.

(c) One gram mole of a perfect gas expands isothermally to four times its initial

5. Discuss in detail the important landmarks in the evolution of vertebrates with suitable sketches.
6. Write notes on any **two** of the following:
- a.) Criteria for trace fossil classification
 - b) Gondwana flora and its significance
 - c) Important intercontinental migration events during the evolution of horses
7. Write notes on any **two** of the following:
- a) Extinction of dinosaurs
 - b) Evolution of eye in trilobite
 - c) Application of fossils in environmental interpretation
8. What do you understand by Adaptation & Functional morphology? Discuss the ecological/functional significance of any two of the following:
- a) Presence of spines in Brachiopoda
 - b) Pallial sinus in Bivalvia
 - c) Crinkled septa in Cephalopoda
 - d) Shells cemented to substrate