

*This question paper contains 2 printed pages.*

*Your Roll No. ....*

**Sl. No. of Ques. Paper : 2057**  
**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**

**GC-3**

*(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