

[This question paper contains 4 printed pages.]_____

Your Roll No.....

Sr. No. of Question Paper : 1398

I

Unique Paper Code : 2192011103

Name of the Paper : DSC-3 Concepts of Stratigraphy

Name of the Course : **B.Sc. Geology**

Semester : I (NEP) 2024-25

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Answer any **five** questions.
3. All Questions carry equal marks.

P.T.O.

1. Write short notes on any **four** :
 - (a) Law of faunal succession
 - (b) Magnetostratigraphy and its application
 - (c) Precambrian Eon and its subdivisions
 - (d) Biocoenose and Thanatacoenose
 - (e) Application of petrology in stratigraphy
2. What is a 'Index fossil'? What is major criticism for application of index fossil concept in stratigraphy? How a better understanding can be reached from fossil data? What is a 'leaked fossil'?
3. Define 'Biozone' and 'Biochronozone'. With proper example and suitable illustrations discuss the necessity of keeping different acronyms (FAD, LAD, LO, HO etc.) for exercising biochronology in geological succession.

4. Define 'Law of superposition'. With suitable figure illustrate how we resolve validity of this law in case of rotated limb of an overturned fold.
5. What do you understand by the terms 'Geochronologic unit' and 'chronostratigraphic unit'? Illustrate with example of Paleozoic and Mesozoic Era.
6. What do you understand by paleogeographic reconstruction? How do we prepare a paleogeographic map? Discuss the importance of paleoenvironmental analysis in paleogeographic map reconstruction in mineral and hydrocarbon exploration.
7. 'Geophysics' can be used as a very useful technique for subsurface stratigraphic classification and correlation' - enumerate the statement with justification.

8. 'Rb - Sr geochronology can be suitably used for determination of crystallization and metamorphic age of a metamorphosed granite' Justify the statement with suitable figures and explanations.