

5670

8. Discuss tectonic evolution of the Kutch basin. Comment on the fossil content and depositional environments of the Mesozoic stratigraphy of Kutch.

[This question paper contains 4 printed pages]

Your Roll No. :

Sl. No. of Q. Paper : **5670** **I**

Unique Paper Code : 2192012403

Name of the Paper : Geology of India
DSC-12

Name of the Course : **B.Sc.(Hons.)**
Geology, NEP-UGCF

Semester : IV

Time : 3 Hours **Maximum Marks : 90**

Instructions for Candidates :

- (a) Write your Roll No. on the top immediately on receipt of this question paper.
- (b) Attempt any **five** questions. **All** questions carry equal marks unless mentioned.

1. Discuss stratigraphic classification and tectonic framework of the Aravalli Craton. Comment on the mineral resources of Aravalli Craton.

2. Discuss any **two** of the following :

- (a) Cretaceous – Tertiary mass extinction
- (b) Stratigraphy of Siwalik Supergroup
- (c) Greenhouse and icehouse periods of the geological past

3. Describe stratigraphy and paleogeographic setting of the Gondwana basins of peninsular India. Discuss the depositional environment of Gondwana Supergroup and explain why only certain horizons of Gondwana successions are rich in coal ?

4. Enumerate salient features and significance of Proterozoic sedimentary basins. Explain the tectonic evolution, stratigraphy and depositional environment during deposition of Vindhyan Supergroup. Comment on the age of Vindhyan Successions.

5. Describe Deccan Trap stratigraphy. Comment on infra-trappeans and inter-trappeans sediments and their importance in Deccan Trap. Discuss the mode of evolution of continental flood basalts (CFB) and criterion used to establish CFB stratigraphy.

6. Discuss any **two** of the following :

- (a) Stratigraphy and tectonic setting of the Eastern Ghat Mobile Belt (EGMB)
- (b) Methods of paleogeographic reconstructions
- (c) Tectonic evolution of the Singhbhum Craton

7. Discuss causes of relative sea-level fluctuation and its effect on coastal sedimentation along the west coast of India. Comment on the hydrocarbon potential of Mumbai off-shore basin in relation to fluctuations in relative sea-level.