

[Time: Three Hours]

[Marks:75]

Please check whether you have got the right question paper.

N.B: 1. Draw neat labeled diagrams where necessary.

- Q.1 a) i. Describe the tectonic elements of Himalayan Mountain belt and add a note on structure of Peninsular India 08
 ii. Define Craton, Shield and Platform. Give suitable Indian examples of each. 07
 OR
 b) i. Describe the composition and structural elements of oceanic lithosphere. 08
 ii. Write a note on alluvial plains of Northern India. 07
- Q.2 a) i. What are the economic mineral deposits in Paleoproterozoic Aravalli Supergroup? Add a note on their origin. 08
 ii. Give lithostratigraphic succession of Dharwar Craton and describe its tectonic evolution. Add a note on economic mineral deposits found in eastern part of Dharwar Craton 07
 OR
 b) Describe stratigraphy and tectonics of Singhbhum Craton. Enlist various shear zones and their significance in Singhbhum Craton 15
- Q.3 a) i. What is Delhi fold belt? Write a note on lithostratigraphic succession of Proterozoic Delhi Supergroup and explain its depositional environment. 08
 ii. Describe lithology and depositional environment of Semri, Kaimur, Rewa and Bhandar Groups. 07
 OR
 b) Why is there an unconformity between Meso-and Neoproterozoic successions in India? Explain the environment of deposition and lithology of Neoproterozoic Kumool Group. 15
- Q.4 a) i. Describe in brief lithology and structure of Vaikrita and Haimanta Groups. 08
 ii. Write a note on lithology of Deoban Group and Salkhala Group of Central Himalaya. 07
 OR
 b) Describe in detail the lithology and environment of Sediment cycle-III and IV in Central sector of Himalaya 15
- Q.5 Write notes on (Any three) 15
 i. Continental lithosphere
 ii. Stratigraphy of Bagalkot and Badami Group
 iii. Relationship between Peninsular gneiss, Sargur Group and Dharwar Supergroup
 iv. Lithology and structure of Kulu thrust sheet
 v. Magmatic activity in Singhbhum Craton
 vi. Geology and structure of Nallamalai Fold belt