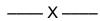
- (g) Write short notes on 'Closepet Granite' and 'Newer Dolerite'.
- (h) Discuss briefly the broad units of Central Indian Tectonic Zone (CITZ).



# FINAL BACHELOR OF SCIENCE EXAMINATION, 2019 (3rd Year, 1st Semester)

#### GEOLOGICAL SCIENCES

## Stratigraphy

Paper - XI

Time: Two hours Full Marks: 50

Use a separate answer script for each group.

### GROUP - A

Answer *q.no.1* and any *four* from the rest.

1. Match the following fossils with age:

Fossils Age

Pseudomonotis himaica Lr. Carboniferous

Syringothyris cuspideta Turonian Bruhathakayosaurus matleyi Aptian

Placenticeras mintoi Maastrichtian Deshayesites bosei Lr. Triassic

2. "Sea level changes as recorded in the sequence of Spiti area do not follow the global trends in eustatic sea-level changes during the Paleozoic Period" – Discuss the statement.

(Turn over)

- 3. "Kashmir area witnessed a local transgression during Permian time" Jistify the statement. 5
- 4. Write a note on the Permo-Triassic boundary in Extrapeninsular India. 5
- 5. Discuss bipartite and tripartite subdivisions of the Gondwana Supergroup. 5
- 6. Briefly discuss the tectonic evolution of Assam Basin.
- 7. Write down the general characteristics of the Gondwana Supergroup. Define 'Gondwana Province' in Peninsular India.

  3+2
- 8. Describe the evidences of Cretaceous sea level rise from the cratonic part of peninsular India. 5
- 9. Comment on the paleogeographic configuration of the Indian Gondwana basins during Late Carboniferous-Early Permian time.

## **GROUP-B**

10. Answer any *five* questions.

5x5 = 25

- (a) Discuss briefly the tectonic evolution of the Bastar craton.
- (b) Why is it difficult to reconstruct the geologic history of Precambrian time? What are the reasons to assume that Earth's early atmosphere was lost in space?
- (c) Delineate the major crustal scale shear zones and major tectonic units in the Southern Granulite terrain. What is 'Fermor line'?
- (d) Write the process of formation of Earth's earliest crust with schematic diagrams. True komatiites are rare and essentially restricted to rocks of Archean age Justify.
- (e) Draw a N-S cross section of the Singhbhum craton up to The Chtonagpur Granite Gneissic Complex (CGGC) to show the major litho-units and crustal scale structures. What are the important lithological units of IOG?
- (f) Discuss the characteristic feature of Archean greenstone belts.

(Turn over)